NETAJI SUBHASH CHANDRA BOSE MEDICAL COLLEGE JABALPUR

A Comprehensive Study on Various Body & Mind Parameters During Prolonged Fasting and Continued Physical Exertion

Conducted under auspices of Govt. of MP – Public Health & Medical Education Department

At NSCB Medical College

Jabalpur MP

From 22-05-2024 to 29-05-2024

प्रति

रजिस्टार म. प्र. मेडिकल कौंसिल

भोपाल (म.प्र.)

Through -Proper channel उचित माध्यम डीन N S C B में मेडिकल कॉलेज जबलपुर (म.प्र.)

विषय एवं संदर्भ - म.प्र. शासन चिकित्सा शिक्षा विभाग के निर्देशानु. क्रियांवित एवं संपन्न शोधकर्ता (दादा गुरूजी के निराहार रहने संबंधित)|

महोदय ,

दादा गुरूजी के निराहार रहने तथा इस अवधि में (7 दिन) शारीरिक श्रम करते रहने के समय एक वैज्ञानिक शोधकार्य करने हेतु म.प्र. चिकित्सा शिक्षा विभाग द्वारा निर्देशित किया गया था | इस हेतु एक तीन सदस्यरीय शोध समिति का गठन किया गया था | समिति में प्रो. डॉ. आर एस शर्मा ,हृदय रोग विशेषज्ञ पूर्व कुलपति म.प्र. मेडिकल यूनिवर्सिटी (अध्यक्ष)तथा पी पुनेकर मेडिसिन विशेषज्ञ तथा प्रोफ़ेसर आर महोबिया (पैथॉलॉजी विशेषज्ञ)एवं श्री नीलेश रावल प्रतिनिधि अध्यक्ष नर्मदा मिशन जबलपुर थे | समिति ने अपना शोधकार्य 22 -5 -24 से 29 -5 -24 तक किया | इस शोध समिति के सर्वसमत्ति के लिए गए निष्कर्ष आपको आवश्यक कार्यवाही हेतु चिकित्सा शिक्षा विभाग के निर्देशानुसार प्रस्तुत किये जा रहे है|

संलग्न -- दादागुरु के निराहार रहने तथा शारीरिक श्रम सम्बंधित एवं संक्षेपिका

इस शोध समिति के सर्वसम्मति के लिए गए निष्कर्ष आपको आवश्यक कार्यवाही हेतु चिकित्सा शिक्षा विभाग के निर्देशानुसार प्रस्तुत किये जा रहे है|

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श्री नीलेश रावल
अध्यक्ष ममंदा मिशन जबलपुर

डॉ. प्रोफेसर आर. एम. शर्मा
एमडी डीएम हृदय रोग विशेषज्ञ एवं
पूर्वकुलपति म. प्र. मेडिकल यूनिवर्सिटी
जबलपुर

प्रो. डॉ. वी. पुनिकर पुणेकर
एमडी प्रोफेसर मेडिकल विभाग
एन एस सी वी मेडिकल कॉलेज जबलपुर

प्रो. डॉ. आर. महोबिया
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एन एस सी वी
मेडिकल कॉलेज जबलपुर

SUMMARY & CONCLUSIONS

A comprehensive study was conducted on various body and mind parameters during prolonged fasting and strenuous physical activity by Swami Dada Guriji. The study was conducted under auspices of Govt. of MP and NSCB Medical college Jabalpur (MP) from 22.05.24 to 29.5.24.

Physical, mental, biochemical & investigative parameters were observed during the study. Dada Guruji was confined to a room in NSCB Medical college under CCTV and police surveillance all the observations were made daily in morning and in evening at end of 25-30 Km of Narmada Parikrma. Following conclusions were drawn at the completion of study.

1. Shri Swami Dada Guru did not consume any food substance that could give energy or nutrition during the period of study. He took 300-1000 ml of "Narmada river water".
2. Result showed that despite continuous fast and strenuous physical activity daily (25-30 km walking under sun 40^0-45^0 atmospheric temperature) Dada Guru was physically and mentally agile and fit and had no symptoms or complaints.
3. His physical, mental checkup, biochemical

Parameters, fluctuating parameters were mostly in normal range except few fluctuating marginal aberrations in b1. Sugar, s creatinine, uric acid, blood urea, S Iron, ferritin. (details in "Results") These are expected in a 7 day fast.

3. In our opinion Dada Guruji's response to strict fasting and strenuous physical activity is unique and heitherto unreported in world medical literature.

4. Probable mechanisms, our hypotheses and applied importance of this study is discussed.

A Based on existing evidence from various animal & human studies we suggest that this unique response of Dada Guru is due to "metabolic adaptation" and markedly increased. 'Endurance power" for fasting and adverse conditions. Metabolic adaptation includes hypomotabolic stage, allows to minimize use of reserve carbon energy sources and to accumulate high levels of ketone bodies. Brain utilizes ketones by ketolysis to from acetyl CoA. glycerol also acts as carbon source.Alternative metabolic programme was evolved billion of years ago when food and energy sources were not available. Penguins also use fatty acids and ketones to tide over even 5 months of food deprivation. Fasting also physiologically like increase insulin sensitivity peripheral glucose utillsation cellular stress resistance. Decrease in resting BP and heart rate, increased parasympathetic tone Metabolic adaptation also includes better cellular bioenergetics, decreased accumulation of oxidized damaged molecules, decreased inflammation. Fasting also. Improves hypertension, neuro protection and metabolic syndrome. Adaptive response of brain to reduced food availability is through BDNF Brain derived neurotrophic hormone.

'B' Endurance power' is increased by Positivety of mind, spirituality, repeated practice and closeness to nature. Strict fasting and walking 25-30 km Per day under scorching sun with

temperature 42^0-45^0 needs lot of endurance. Adversity was compounded by the fact that during this walk Dada Guru was not taking any nutrition not even water. He used to take water (narmada water) only after returning to medical college hospital. Positivity acts through hypothalamns, limbus part of brain.

C. Besides extreme positivity of mind Dada Guru himself believes and told us (investigators):-

DADA GURU'S VERSION ABOUT THE ABOVE SCIENTIFIC FACTS

" I derive energy from nature:-

I derive energy from trees, flowing river narmada, from small pebbles & stones, and earth that come in my contract while walking on narmda path. I derive energy from the fresh air which I breath while walking along side the river narmada. I do not take food, I do not take water also while walking under scorching heat along side narmada, I do not feel heat wave at all, I feel nature wave. I feel the sun energy giving me energy and I have no discomfort at all. In the evening when after completion of the day's narmada Parikrma I take 300-500 ml Narmada river water, I feel that each drop with multiples of molecules and atoms provide me with immense unlimited energy. My doctor & investigator asked me that why you only get this much energy from nature when so many persons walking on narmada path and taking narmada water do not get this energy I replied to him that one has to be completely Nishkaam (self less) and pure of heart to get this energy from nature.

I want that we should protect and respect nature, we should come in regular prolonged contact with nature. In my experience

I have found that this Narmada Path and mountains surrounding it are the greatest source of energy in this world. We just have to procure it. Nature heals and repairs the damages to body very fast and abolishes the dependence on intake of food as source of energy.

Above is the verbatim version of Dada Guruji's concept of source of his energy and about the wonderful treasures of nature.

We as scientists and doctors have tried to scientifically observe and collect data meticulously, analyse these to confirm & explain the amazing facts about Dada Guru's power of great physical, mental metabolic adaptation to prolonged fasting and his power of endurance. We have tried to synthesise and assimilate the scientific and spiritual knowledge for the benefit of mankind.

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श्री दादागुरू के निराहार रहते हुए शारीरिक श्रम संबंधी शोधकार्य की संक्षेपिका एवं निष्कर्ष:

1. उपरोक्त शोधकार्य राज्य शासन म.प्र. के निर्देशानुसार गठित शोध समिति द्वारा 22.05.2024 से 29.05.2024 तक शासकीय नेताजी सुभाषचंद बोस मेडिकल कॉलेज जबलपुर (म.प्र) में किया गया। शोध समिति में अध्यक्ष प्रोफेसर डॉ. आर.एस. शर्मा, हृदय रोग विशेषज्ञ, पूर्व कुलपति म.प्र. मेडिकल यूनिवर्सिटी, प्रोफेसर पी. पुनीकर, प्रोफेसर मेडीसिन विभाग, प्रोफेसर आर. महोबियया, प्रोफेसर पैथालॉजी एन.एस.सी.बो. मेडिकल कॉलेज, जबलपुर थे। सहायता हेतु रेसीडेंट डाक्टर्स, पैरामेडिकल स्टाफ, पुलिस प्रशासन के कर्मचारी थे।

2. उपरोक्त समिति ने प्रारंभ दिनांक 22.05.2029 से समाप्ति 29.05.2024 तक प्रतिदिन नियमित अंतराल पर शारीरिक, मानसिक, बायोकेमिकल एवं अन्य अन्वेषणीय मानकों का लगातार अवलोकन कर परिणामों को संश्लेषित किया। इस अवधि में दादा गुरूजी की सतत् निगरानी सी.सी.टी.वी. कैमरा, वीडियोग्राफी एवं पुलिस कर्मचारियों द्वारा की जाती रही।

3. 29.05.2024 को रात्रि 8 बजे प्रयोग समाप्ति के बाद सभी परिणामों को एकत्र कर उनका वैज्ञानिक विश्लेषण किया गया।

4. यह परिणाम दर्शाते हैं, कि–

   (क) श्री दादा गुरूजी ने शोधकार्य अवधि में कोई भी खाद्य पदार्थ या पोषण आहार नहीं लिया। केवल 300–1000ml प्रतिदिन नर्मदा जल ग्रहण किया ।

5. इस अवधि में प्रातः 7 बजे एवं दिनभर की नर्मदा परिक्रमा (25–30 कि.मी. की) के बाद उनका शारीरिक परीक्षण सामान्य रहा

तथा शारीरिक एवं मानसिक रूप से पूर्णतः सहज सामान्य रहे। शारीरिक मानक पल्स बी.पी., श्वांस, तापमान एवं अन्य परीक्षण भी अधिकांशतः सामान्य रहे।

6. केवल कुछ परीक्षणों में असामन्यता पाई गई, जैसे कि 2 बार रक्त शर्करा 57 mg. - 65 mg (कम) हुई, पर कोई लक्षण नहीं हुए, यह कम शर्करा स्वतः ही कुछ समय में सामान्य हो गई, बिना किसी आहार/उपचार के। गुर्दे संबंधित जाँचें जैसे ब्लड यूरिया, क्रिरेाटीनिन सामान्य से कुछ अधिक पाये गये, पर कोई लक्षण नहीं हुए तथा ये मानक से ज्यादा बढ़े भी नहीं। श्वेत रक्त कणिकाओं, प्लेटलेट्स में कुछ भिन्नता देखी गई पर यह भी बिना किसी लक्षण के थी तथा स्वतः ही सामान्यता की ओर अग्रसर हो गई, इसे 'नानस्पेसिफिक' कारण कहा गया।

7. चूँकि अधिकतर मानक सामान्य रहे तथा दादा गुरू स्वयं भी सामान्य रहे (शारीरिक, मानसिक), अतः इतने दिनों तक निराहार रहने के साथ अत्यधिक कठोर शारीरिक श्रम (25–30 कि.मी. नर्मदा परिक्रमा तेज धूप, 42-45° तापमान) को सहजता से सहन करना (endurance) वैज्ञानिक रूप से अत्यंत विस्मयकारी माना गया, क्योंकि सामान्य व्यक्ति के लिए यह करना संभव नहीं था, इनके साथ में धूप में चलने वाले साथी व्यक्तियों को रूकना पड़ता था तथा खाद्य पदार्थ व पेय पदार्थ लेना पड़ता था।

8. मानव शरीर के अंगों तथा कोशिकाओ को कार्य करने हेतु ऊर्जा (energy) की आवश्यकता होती है तथा यह ऊर्जा सामान्यतः रक्त में उपस्थित ग्लूकोज तथा उसके संपूर्ण रूप से उपयोग हो चुकने के बाद (यदि व्यक्ति निराहार है) शरीर के अन्य अंगों जैसे लिवर, किडनी, मांसपेशियों में संग्रहित ग्लाइकोजन से प्राप्त होती है। इस संचित ग्लाइकोजन के समाप्त होने के बाद (24-48 hr

निराहार रहने के बाद) ऊर्जा शरीर में संचित वसा (फैट) से प्राप्त की जाती है और उसके बाद प्रोटीन (मांसपेशियों में) से प्राप्त की जाती है। जैसे–जैसे ग्लुकोज समाप्त होता है फैट एवं प्रोटीन, एमाइनों एसिड से उत्पन्न कीटोन से ऊर्जा प्राप्त की जाती है। दादा गुरू जो निराहार रहते हुए शारीरिक श्रम (25-30 km. धूप में 42-45° तापमान पर तेज चलना) कर रहे हैं, उन्हें ऊर्जा कहां से और कैसे प्राप्त हो रही है, यह वैज्ञानिक दृष्टि से अत्यंत आश्चर्यजनक है– क्योंकि उनके शारीरिक, मानसिक, बायो–केमिकल मानकों में कोई उल्लेखनीय परिवर्तन नहीं देखा गया (शोध के प्रारंभ से अंत तक) दो बार रक्त शर्करा कम होने के बाद भी वे पूर्णतः सामान्य रहे और रक्त शर्करा की कमी (हाइपोग्लाईसीमिया) के कोई लक्षण नहीं दिखाई दिये, बिना किसी आहार के उनकी रक्त शर्करा अधिकांश समय समान्य रही। ऊर्जा के एक और वैकल्पिक स्त्रोत 'कीटोन' वाडीज, वीटा हाइड्राक्सी ब्यूटरेट की रक्त में उपस्थिति सामान्य सीमा में रही। यूरीन में कीटोन नहीं प्रदर्शित हुए। इन दोनों तथ्यों से प्रदर्शित होता है कि दादा गुरूजी के अंगों, ऊतकों एवं कोशिकाओं को ऊर्जा ग्लुकोज एवं कीटोन से प्राप्त हो रही है तथा उनके उपयोग के द्वारा व्यय होने की मात्रा (Consumption) काफी कम है (क्योंकि रक्त में इन ऊर्जा प्रदायक पदार्थों की मात्रा सामान्य है, संक्षेप में कहा जाये तो दादा गुरू के अंग (organs), ऊतक (issues) तथा कोशिकाऐं (Cells) अत्यधिक कम मात्रा में ऊर्जा का उपयोग करते हुए भी सामान्य या उससे अधिक कार्य करने में सक्षम हैं। (ज्यादा Fuel efficient- ईंधन की ज्यादा बचत करने में सक्षम है)

"मुझे ऊर्जा प्रकृति से प्राप्त होती है, वृक्षों से, पौधों से, बहती हुई नदी के जल से, नर्मदा पथ पर छोटे–छोटे पत्थर, कंकड़, भूमि, वहाँ बहने वाली वायु, इन सबसे मैं संपर्क में आता हूँ तथा असीमित ऊर्जा प्राप्त करता हूँ। नर्मदा परिक्रमा करते हुए मैं जल ग्रहण नहीं करता हूं, निराहार तो पहले से ही हूँ– नर्मदा परिक्रमा के समय ''वायु'' से ही मुझे ऊर्जा प्राप्त होती रहती है, इतनी तेज धूप में भी मुझे कोई असुविधा या तकलीफ नहीं होती, बल्कि मुझे सूर्य से और ज्यादा ऊर्जा प्राप्त होती है, मेरा मुंह एवं गला भी नहीं सूखता। शाम को परिक्रमा के बाद नर्मदा जल ग्रहण करता हूँ, मुझे लगता है कि इस जल की हर बूंद में अत्यंत ज्यादा असीमित ऊर्जा है। जिज्ञासु व्यक्ति मुझसे पूछते हैं कि यह ऊर्जा जल, वायु, प्रकृति से उन्हें क्यों नहीं मिलती ? मेरा उत्तर रहता है कि निष्काम भाव से शुद्ध आत्मा से रहने पर प्रकृति यह ऊर्जा प्रदान करती है। मैं चाहता हूँ कि हमें प्रकृति का सम्मान करना चाहिए, प्रकृति को सुरक्षित रखना चाहिए और प्रकृति से ज्यादा से ज्यादा संपर्क में रहना चाहिए। मेरे अनुभव में नर्मदा पथ, नर्मदा नदी तथा उसके आसपास के जंगल एवं पहाड़ ऊर्जा के असीमित स्त्रोत हैं। प्रकृति शरीर को स्वस्थ रखने में अत्यंत सहायक है, शरीर के अवयवों की मरम्मत तुरंत कर देती है।"

उपरोक्त विचार दादा गुरूजी के हैं।

हम शोधकर्ताओं चिकित्सकों ने दादा गुरूजी निराहार रहने, शारीरिक श्रम के समय किये गये शोध के डाटा को एकत्र कर विश्लेषण करने के बाद कुछ निष्कर्ष निकाले हैं, पाया है कि दादा गुरूजी की शारीरिक, मानसिक स्थिति इतने निराहार एवं श्रम के बाद भी सामान्य है तथा उनके शरीर एवं मन की सहनशीलता (endurance) भी अत्यधिक है। हमने प्रयत्न किया है कि आध्यात्मिक एवं वैज्ञानिक

आयोमों को समायोजित कर इस शोध कार्य के निष्कर्षो को मानव एवं समाजहित में प्रस्तुत करें।

दादा गुरू द्वारा किए जा रहे निराहार तथा शारीरिक श्रम पर किया गया शोध विश्व में इस तरह का प्रथम शोध है तथा वैज्ञानिक जगत एवं जन–सामान्य हेतु उपयोगी जानकारी प्रदान करता है।

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A comprehensive study on various body and Mind Parameters during Prolonged fasting and strenuous Physical exertion.

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Abstract: A Detailed study on effects of prolonged fasting and strenuous physical exertion was carried out from 22.5.24 8 Pm to 29.5.24 8 PM at NSCB Medical college Jabalpur M.P. India.

As per subject under study Dada Guruji, actual (name not given for ethical reasons) he stopped taking food from 17 oct 2020. He was taking no food/fruits/ vegetables or any edible objects. He took only a small (aprox 500 ml) amount of "Narmada River Water collected from mid stream. In the mean time he either continues his Parikrama around Narmada River or intermittently he stops at few places for worships and religious discourses. He is always under constant companionship and even at times in certain setting under CCTV surveillance. Since he is Physically and mentally very active and his general health is excellent it was decided by Govt. of MP to conduct a scientific study to objectively assess his physical, mental parameters,biochemical profile and certain other investigations (ECG echo cardiography USG abdomen EEG etc) The observation data are analysed in standard scientific mannner and results procured details attached.

Investigator :*Prof. Dr. Sharma RS, MD, Dm Cardiology (AIIMS New Delhi). Ex Vice Chancellor MP Medical University. ** Prof. P. Punikar, M.D. Prof. Gen Medicine***Prof R Mahobia Prof. Pathology, NSCB Medical College Jabalpur MP India.

AIMS and objectives

1. To assess various body and mind parameters during supervised continuously monitored prolonged fasting along with exertion during period of study (7 days)
2. To assess various physiological, biochemical and investigative parameters during the period of study.
3. To assess for development of any disease or abnormal symptom process during this period.
4. To hypothesize and suggest mechanisms for explaining the results.
5. To expore the applied importance of the study for benefit of public and society at large.

Material, methods and protocol subject was admitted in a room in Govt. NSCB medical college on 22.05.2024 at 8 PM and discharged on 29.05.2024, 8 PM. He was continuously under surveillence by CCTV, video graphy and physical presence of police security, residents and paramedical staff. His detailed, history physical examination finding (including vitals like pulse, BP, respiration, body temprature) mental faculties were recorded at time of admission and periodically thereafter. Bedside ECG monitoring and ambulatory holter monitoring was done during ambulatory period. Various biochemical parameters (list attached) including CBC, blood sugar, ABG, Vitamins, electrolytes, uric acid, kidney,liver function tests, minerals were measured at the start of study. All the relevant parameters were repeated daily in morning and in evening after completion of "Narbada Parikrama walking". As at present scientific knowledge about life with such a long starvation and strenuous physical activity is not evident hence this study is undertaken to authenticate changes in physical, mental, investigative parameters and the probability of normal life even with this much prolonged

fasting and exertion in adverse conditions (sunlight, high atmospheric temparature, slopes and heights etc) The results are attached and discussed in text as there are large number of parameters involved.

The study conclusively proved that Shri Dada Guruji consumed no food/ Calories/nutrients during this 7 days study and he endured this strict fasting and 25-30 km of strenuous walking in hot summer weather (42-45^0) without any problem. He was asymptomatic throughout this period. He was physically and mentally agile and fit from start to end of study. His physical, mental and investigtive parameters (including biochemical) did not show any significant aberrations. In our opinion this response to strict fasting and strenuous physical activity is unique and heitherto unreported in world medical literature. Probable mechanisms, hypotheses and applied importance of this study for public and society at large is discussed.

Interpretation of Results;

(Shown in Table - Graph)

CBC including ESR was consistently within normal range except one high WBC reading on 23.05.24 without signs of infection(no fever, body ache, malase, normal physical examination. Subsequently mostly the WBC count was in normal range and at end of study it was just 4.9 10^3/ul. So it can be considered non pathological and non specific. Lymphocytes also showed variations, non specific same was true for platelets.

Serun B12 level were also normal we know that humans synthesise B12 in very small amount by intestinal bacteria and in this case food not consumed as per history since more than 1300 days, so stores of B12 are likely to be consumed by this time Folic acid levels also were normal.

Vit D levels were normal, food intake being nil, it is likely that regular exposure to sunlight and just bare minimum clothes allowed normal vitamin D to be synthesised by skin.

Serun cortisol showed marked variations (4.75 to 16.5 ng/dl) and is likely to play role in metabolic adaptation)

TSH level was high only once (on 25/5 - 2nd day of study) we know that it may be showing lower metabolic rate and less energy consumption but it was not consistently high and varied in normal range from 2.54 to 2.73 4/ml.

T_3 T_4 levels were also in normal range B1. urea and S. creatinine were mostly on higher side on 25.5.24 (B1, urea 65.34 and at end of study 43.77 mg/dl.) Screatinine was also on higher side at end of study (1.35 mg/dl) may be correlated with excessive physical exertion (more than 25 km walking in hot summer 42^0C) and poor water intake and poor urine output (10,15 ml in 24 hr) water intake approx 500 ml. He had no prior kidney disease, USG Kidney was normal. S uric acid was normal through out but at the end of study it was high 9.2 mg/dl but had no symptoms may be due to protein catabolism. His liver functions were also normal. there on.

Another interesting result was noted in serum glucose it was found to be low 68mg/dl at time of admission(22/5/24 at 10.30 pm sample) but had no symptoms, was mentally & physically agile. Even at 57.8 mg/dl low glucose at 7 pm on 29.5.24 he had no symptoms. This could be due to dependence of his tissues including brain on ketones rather than glucose. More intriguing is the fact that except for these two instances his blood sugar levels were mentained in normal range and even upto 131 mg (on 26.5.24) despite no intake of any food material. Lipid profile: total cholestorol was 188 mg/dl at the start and 179 at the end of study (within normal range). TG and LDL choloeterol were normal.

Serum calcium, phosphorus amylase, lipase LDH levels were normal Tropi, SGOT, CPK MB levels were in normal range indicating no myocardial injury.

Serum iron was found to be variable with low levels at the start and in the end but within range in between. With fluctuating levels serum ferritin was found to be very low on 22.5.24 10 pm 8 mg, but on 25.5 it rose to its maximum 15.5 mg. again. Unexplainable on this setting of fasting potassium, sodium, chloride levels were in normal range despite no electrolytes intake of any signifiant amount however suprisignly at the end of study S- potassium levels were on highter side (5.53 m mol) without any intake. S. protiens were also in normal range. S Narmada levels were also normal.

Urine:- Total intake of water (narmada river water) taken in silver glass ware. It was chilled and kept in thermos. Intake varied from 300 ml to 1000 ml per day. urine output was only 10-15 ml. perday and still the urine colour was not dark but pale yellow and specific gravity surprisingly was not high varied from 1.01 to1.03).

Urine Ph varied from 6 on 25.5 to 7 on 26/5, 7 pm and 8 on 28/5, 29/ end of study).

Proteins were absent in urine, no sugar was traceable.

With an overview of above results and their interpretation it is evident that many results are surprising in view of strict fast without food,no other source of energy/calories/vitamins/minerals/proteins /fats/carbohydrates. More over as per his past history of similar strict fasting of more than 1300 days (since 17 october 2020) these findings at the start of study and it the end are amazing. This ismore more so in view of strenuous physical activity daily (25-30 km per day walking under sunny weather (temp 42-45^{0}c) This much physical activity utilises 1500 calories perday (1 cal/kg/km), subject is 60kg hance 60 cal/km x 25 km= 1500 colories. This is over and above the mininum

caloric expenditure of a sedentary person (2000 cal/day) so total will be 3500 calories. in view of no intake of any food or calories from outside the body stores of calories, vitamins, minerals will be exhausted soon (less than 30 days) but even before this deadline person with this much strict fasting will be very weak physicaly and mentally, not agile enough to continue his normal routine without any problem but here we could see this happening under our direct supervision and strict observation and surveillence by CCTV and police personnal at medical college room and during daily walking of 25-30 km in high temperature summer season. These results indicate that only extreme metabolic adaptation of Dada Guru and high physical and mental endurance power of exceptional degree can explain these phenomenon.

We will discuss these results and likely mechanisms for these in Discussion along with review of relevent literature.

All these parameter were noted in a chart continuously and at end of study were analyzed. Any symptoms as reported by subject were also noted psychiatric evaluation was also done. period of study was from 22.5.24, 8 pm to 29.05.24, 8Pm .

Results:- Were tabulated and analyzed objectively and findings at the start in between and at the end of study were analyzed.

(Plz see tables, charts attached.)

Interpretion of Results and discussion.

In this review of physical, bio chemical and investigative aspects of metabolic responses to fasting and starvation, the term fasting is defined as total absence of nutrient intake whereas starvation is defined as a prolonged period of inadequate food intake. During the process of prolonged fasting the body undergoes a sequence of changes called metabolic adaptation accompanied by a depletion of preexisting fuel stores. However if fasting

continues metabolic decompensation will occrue finally resulting in death. The extent and rate of progression through these steps depend on amount of fuel stores, the caloric reserve at initiation of fast, the severity and duration of nutritional deprivation and presence or absence of a significant catabolic stress such as injury, sepsis or severe physical exertion (walking etc). several events such as functioning of various organs (eg. heart brain etc), flow of neural signals, metabolism and regulation of enzymes and hormones all require energy. Energy is therefore essential for survival of any organism.

During initial phase of starvation Gluconeogenesis supplies glucose to brain, heart and other tissues. It is the process whereby lactate, pyrurate, glucerol and other aminoacids are converted into glucose and glycogen, liver is the major site of gluconeogenesis, although the kidney becomes important during prolonged starvation. Gluconeogenesis maintains blood glucose levels during times when food intake is restricted and or / glycogen stores are depleted. Human have relatively very little carbohydrate reserve. 70 kg man has approximately 900 k cal of carbohydrate stored as glycogen in liver and skeletal muscles. Subsequently after gluconeogenesis (after 48 hrs) ketogenesis takes over and metabolic needs are supplied by ketones bodies and free fatty acids, this is because of decreasing insulin levels and increasing catecholamins and cortisol, Over prologed starvation the proteins catabolism begins resulting in degradation of structurally important protein and organ system dysfunction, With prolonged starvation rate of protein catabolism reduces. Adaptations occurs, brain survives on ketones rather than glucose. Weight loss of *9 kg/day for first few days of fast and then *3 kg/day owards 3rd week of fasting. Most persons lose 20 % of their body weight during a 30 days fast.

Potassium decreases initially, magnesium and calcium remain stable, uric acid increases, Heart rate, B.P. decreases. Decrease in T3 T4 TSH, increased

turnover of serotonin. Urine ketones, B hydroxy butyrate levels, liver, kidney function tests, vitamins, electrolytes, BMR is seen. ECG :- Rt axis deviation, decreased T,QRS amplitude increased QTC, T inversion, ST depression is seen. Various Psychosomatic symptoms, insomnia, irritability, negative feelings, headache cognitive problems are also seen.

Some interesting facts about fasting (prolonged):-

Longest survival report on fasting without solid food (but taking hot water, spring water tea) from June 14/1965 to JUNE 30/1966 Angus Barbieri (Scotsman).

1) Without food and water average person can survive only 5 days at the most.
2) Without foods, survival- 30 days (but with water).
3. Gandhiji fasted for 21 days but had great debility towards the end of fast.

Observations: Following observations were done during the study.

Symptoms during history questionnaire.

S.No	At the initiation of and daily	Days 1,2,3,4,5,6,7
1	General fatique weakness	
2	Feeling of well being	
3	Leg pain/arms	
4	Chest pain	
5	Headache	
6	Dryness of mouth, throat	
7	Chakkar	
8	Giddiness, near syncope	
9	swelling feet, face	

10	Sleep disturbances	
11	Total hrs of sleep	
12	Mental agility	
13	Appetile	
14	Urine	
15	Motion	
16	Shortness of breath	
17	Palpitations	
18	Anxiety	
19	Cough	
20	Any other complaint	

Table II

Table results of physical examination (attached) - Normal

Table III

Table for salient finding of biochemical investigation. (attached) - Normal

Table IV

Table for salient features in ECG, holter (attached)- Normal

Table V

Table for salients features in echo (attached) - Normal

Table VI

Reports of X chest EEG (attached)- Normal

Table VII

Report of CTchest Abdomnal (attached) - Normal

Table VIII

Report of MRI brain (attached) - Normal

OBSERVATION TABLE III

Table 3

Salient features of biochemical findings: (Shri Swami Dada Ji) 22.5.24 to 29.5.24

Blood

CBC	+ ESR	ESR 15 mm at start			
	Maximum	Minimum	Start	End	Remark
RBC	5.58 10^61,ml	4.59	5.3	4.93	
HB	12.9 gm/dl	10.9	12.3	11.5	
WBC	13.68 (23/5)	5.1 (27/5)	7.59 22/5 8PM next 13.68 (23/5)		
Lymphocytes	3.45 (25/5)	1.72 (27/5)	2.60	2.38	
Granulocyte	10.08 (23/5)	2.67 (27/5)	4.62	3.78	
Lympho%	39.8% (29/5)	14.4% (27/5)	2.6%	34%	
Granulocyte%	73% (23/5)	33.7% (27/5)	60.8%	53.%	
Platelet	3.99 (24-5)	52.3 (27-5)	277	375	
McHc	35 (25/5, 29/5)	23 (27/5)	34	35.2	
Serum B12	175 pg (27/5)	135 pq (23/5)	13 PG	1SL PG	
Vit D	66 (27/5)	40 (23/5)	41	52	
Folic acid	9.08 (28/5)	4.75 (27/5)	4.75	8.5	
S. Cortisol	16.5 (26/5)	5.61 (22/5 start)	5.61	5.8	
FT3	4.02 (27/5)	3.02 (29/5)	3.6	3.02	

FT4	1.33 (27/5)	.75 (23/5)	.91 ng		
TSH	7.26 (25/5)	2.54 (27/5)	2.73	2.73	
B urea	65.34 (25/5)	16.96 (22/5)	16.96	43.77	
S creatinine	23/5	99 (22/5)	.99	1.35	
Uric acid	9.21 (29/5)	1.53 (23/5)	4.07	9.2	
T Bilirubi n	2.01 (23/5)	85 (22/5)	.85	1.48	
Direct Bilirub	.27 (23/5)	.13 (22/5)	.13	22	
S Glucose	131 (26/5) 7 am	68 (22/5)_ 10pm	68.69	57.8 (29.5) 7 PM	
Total Cholesterol	(224) 25/5 7 PM	167 (29/5) PM	188	179	
HDL	56.6 (25/5) 7PM	40.0 (29/5) 7am	54	45	
LDL	148 (25/5) 7PM	112 (29/5)	117	118	
S calcium	9.9 (23/5) mg	2.6 (27/5 7pm) 7.12 (24/5) 7 pm	9.01	8.81	
PO4	5.3 (23/5) 10 pm	331 (25/5) 8pm	4.36	3.5	
S amylase	121 (22/5) 10 PM	714 (29/5) 7PM	121	74	
SGOT	34.5 (26/5)	5.7 (23/5)	13	30	
SGPT	15.2 (27/5)	10.9 (22/5)	10.9	13.4	
Total Protein	8.4 (23/5) 3PM	6.6 (29/5) 7PM	7.46	7.43	
Adrenaline	57 (25/5)				

B_1, B_6, B_9- Normal Range Ketone bodies- Beta hydroxybutyrate 1.42 mg ldl - normal range 0-3.0					
S Album	4.70 (25/5)	3.79 (29/5) 7PM	4.3	4.23	
ALK PO_4 ase	117 (23/5)	84 (27/5) 7PM	99.2	97	
Lipase	34.5 (26/5) 7 AM	5.7 (23/5) 7PM	6.7	18.95	
CPK MB	42(28/5) 8PM	23.5 (27/5) 7PM	26.6	31.5	
LDH	37.7 (25/5) 7 PM	136 (29/5) 7PM	173	195	
S Iron	129 (25/5)_ 7AM	17.9 (29/5) 8PM	23.4	17.9	
Ferritin	15.5 mg (25/5) 7PM	8mg (22/5) 10 PM	8MG	14.5	
Magnesium	2.56 mg/dl (26/5) 7PM	1.35 (27/5) 7 PM	1.87	2.17	
Tropi	Ve Start negative all time up to 27%				
Chloride	105 mmol (25/5) 8PM	96.4	97.9	104	
Potasium	5.53 mmol (29/5) 7 AM	3.82 (23/5) 7 PM	4.05	5.53	
Sodium	138.8 mmol (29/5) 7 PM	3.82 (23/5) 7PM	132	138.8	
Narmada water	K^+ k^+ 39 mmol (23/5) 10 PM)	26/5 45 mmol			

Urine

1. 25/5/ PM - clear 26/5 - Pale yellow
2. PH 25/5 '6' 26/5 '7' 7 PM 28/5 '8' 8 PM 29/5 '8' 7 PM
3. Epithetial cells 8-10/ 26/5

4. RBC absent
5. Protein absent 25-5 to 29/5
6. Sp. gravity 25/5, 1.03, 28/5, 1.01, 29.5, 1.01
7. Glucose absent all samples
8. Urine ketones -Absent all samples.

Discussion and Review of World Literature:-

Introduction

In humans, fasting is achieved by ingesting no or minimal amounts of food and caloric beverages for periods that typically range from 12 hours to three weeks. Many religious groups incorporate periods of fasting into their rituals including Muslims who fast from dawn until dusk during the month of Ramadan, and Christians, Jews, Buddhists and Hindus who traditionally fast on designated days of the week or calendar year. In many clinics, patients are now monitored by physicians while undergoing water only or very low calorie (less than 200 kcal/day) fasting periods lasting from I week or longer for weight management, and for disease prevention and treatment. Fasting is distinct from caloric restriction (CR) in which the daily caloric intake is reduced chronically by 20-40%, but meal frequency is maintained. Starvation is instead a chronic nutritional insufficiency that is commonly used as a substitute for the word fasting, particularly in lower eukaryotes, but that is also used to define extreme forms of fasting, which can result in degeneration and death. We now know that fasting results in ketogenesis, promotes potent changes in metabolic pathways and cellular processes such as stress resistance, lipolysis and autophagy, and can have medical applications that in some cases are as effective as those of approved drugs such as the dampening of seizures and seizure-associated brain damage and the amelioration of rheumatoid arthritis (Bruce-Keller et al., 1999; Hartman et al., 2012; Muller et al., 2001). findings

from well-controlled investigations in experimental animals, and emerging findings from human studies, indicate that different forms of fasting including intermittent fasting alternate day or twice weekly fasting. Periodic fasting for several days or every 2 or more weeks.

The remarkable effects of the typical 20-40% Caloric restriction on aging and diseases in mice and rats are often viewed as responses evolved in mammals to adapt to periods of limited availability of food (Fontana and Klein, 2007, Fontana et al., 2010, Masoro, 2005, Weindruch and Walford, 1988). However, the cellular and molecular mechanisms responsible for the protective effects of CR have likely evolved billions of years earlier in prokaryotes attempting to survive in an environment largely or completely devoid of energy sources while avoiding age-dependent damage that could compromise fitness. In fact, E. coli switched from a nutrient rich broth to a calorie-free medium survive 4 times longer, an effect reversed by the addition of various nutrients but not acetate, a carbon source associated with starvation conditions (Gonidakis et al, 2010). The effect of rich medium but not acetate in reducing longevity raises the possibility that a ketone body-like carbon source such as acetate may be part of an "alternate metabolic program" that evolved billions of years ago in microorganisms and that now allows mammals to survive during periods of food deprivation by obtaining much of the energy by catabolizing fatty acids and ketone bodies including acetoacetate and B-hydroxybutyrate (Calill, 2006).

In the yeast S. cerevisiae, switching cells from standard growth medium to water also causes a consistent 2-fold chronological lifespan extension as well as a major increase in the resistance to multiple stresses (Longo et al., 1997; Longo et al., 2012). The mechanisms of food deprivation-dependent lifespan extension involve the down-regulation of the amino acid response Tor-S6K

(Sch9) pathway as well as of the glucose responsive Ras-adenylate cyclase-PKA pathway resulting in the activation of the serine/threonine kinase Rim15, a key enzyme coordinating the protective responses (Fontana et al., 2010). The inactivation of Tor-S6K, Ras-AC-PKA and activation of Rim 15 result in increased transcription of genes including superoxide dismutases and heat shock proteins controlled by stress responsive transcription factors Msn2, Msn4 and Gis1, required for the majority of the protective effects caused by food deprivation (Wei et al., 2008). Notably, when switched to food deprivation conditions, both bacteria and yeast enter a hypometabolic mode that allows them to minimize the use of reserve carbon sources and can also accumulate high levels of the ketone body-like acetic acid, analogously to mammals.

Another major model organism in which fasting extends lifespan is the nematode C elegans. Food deprivation conditions achieved by feeding worms little or no bacteria, lead to a major increase in lifespan (Figure IC) (Kaeberlein et al., 2006; Lee et al., 2006), which requires AMPK as well as the stress resistance transcription factor DAF-16, similarly to the role of transcription factors Msn2/4 and Gisl in yeast and FOXOs in flies and mammals (Greer et al., 2007). Intermittent food deprivation also extends lifespan in C. elegans by a mechanism involving the small GTPase RHEB-1 (Honjoh et al., 2009).

In flies, most studies indicate that intermittent food deprivation does not affect lifespan (Grandison et al., 2009), However, food reduction or food dilution have been consistently shown to extend Drosophila longevity (Piper and Partridge, 2007) suggesting that flies can benefit from dietary restriction but may be sensitive to even short starvation periods Together these results indicate that food deprivation can result in pro-longevity effects in a wide variety of organisms, but also underline that different organisms have different responses to fasting.

Adaptive responses to fasting in mammals

In most mammals, the liver serves as the main reservoir of glucose, which is stored in the form of glycogen. In humans, depending upon their level of physical activity, 12 to 24 hours of fasting typically results in a 20% or greater decrease in serum glucose and depletion of the hepatic glycogen, accompanied by a switch to a metabolic mode in which non-hepatic glucose, fat-derived ketone bodies and free fatty acids are used as energy sources. Whereas most tissues can utilize fatty acids for energy, during prolonged periods of fasting, the brain relies on the ketone bodies ß-hydroxybutyrate and acetoacetate in addition to glucose for energy consumption. Ketone bodies are produced in hepatocytes from the acetyl-CoA generated from ß oxidation of fatty acids released into the bloodstream by adipocytes, and also by the conversion of ketogenic amino acids. After hepatic glycogen depletion, ketone bodies, fat-derived glycerol, and amino acids account for the gluconeogenesis-dependent generation of approximately 80 grams/day of glucose, which is mostly utilized by the brain. Depending on body weight and composition, the ketone bodies, free fatty acids and gluconcogenesis allow the majority of human beings to survive 30 or more days in the absence of any food and allow certain species, such as king penguins, to survive for over 5 months without food (Eichhorn et al., 2011). In humans, during prolonged fasting, the plasma levels of 3-f-hydroxybutyrate are about 5 times those of free fatty acids and acetoacetic acid. The brain and other organs utilize ketone bodies in a process termed ketolysis, in which acetoacetic acid and 3-B- hydroxybutyrate are converted into acetoacetyl-CoA and then acetyl-CoA. These metabolic adaptations to fasting in mammals are reminiscent of those described earlier for E. coli and yeast, in which acetic acid accumulates in response to food deprivation (Gonidakis et al., 2010; Longo et al., 2012). In yeast, glucose, acetic acid and

ethanol, but not glycerol which is also generated during fasting from the breakdown of fats, accelerate aging (Fabrizio et al., 2005; Wei et al., 2009). Thus, glycerol functions as a carbon source that does not activate the pro-aging nutrient signaling pathways but can be catabolized by cells. It will be important to understand how the different carbon sources generated during fasting affect cellular protection and aging, and to determine whether glycerol, specific ketone bodies or fatty acids can provide nourishment while reducing cellular aging in mammals, a possibility suggested by beneficial effects of a dietary ketone precursor in a mouse model of Alzheimer's disease (Kashiwaya et al., 2012). It will also be important to study, in various model organisms and humans, how high intake of specific types of fats (medium-vs. long- chain fatty acids, etc.) in substitution of carbohydrates and proteins influences gluconcogenesis and glucose levels as well as aging and diseases.

Fasting and the brain

In mammals, severe CR/food deprivation results in a decrease in the size of most organs except the brain, and the testicles in male mice (Weindruch and Sohal, 1997). From an evolutionary perspective this implies that maintenance of a high level of cognitive function under conditions of food scarcity is of preeminent importance. Indeed, a highly conserved behavioral trait of all mammals is to be active when hungry and sedentary when satiated. In rodents, alternating days of normal feeding and fasting (IF) can enhance brain function as indicated by improvements in performance on behavioral tests of sensory and motor function (Singh et al., 2012) and learning and memory (Fontan-Lozano et al., 2007). The behavioral responses to IF are associated with increased synaptic plasticity and increased production of new neurons from neural stem cells (Lee et al., 2002).

Particularly interesting with regards to adaptive responses of the brain to limited food availability during human evolution is brain-derived neurotrophic factor (BDNF). The genes encoding BDNF and its receptor TrkB appeared in genomes relatively recently at they are present in vertebrates, but absent from worms, flies and lower species (Chao, 2000). The prominent roles of BDNF in the regulation of energy intake and expenditure in mammals is highlighted by the fact that the receptors for both BDNF and insulin are coupled to the highly conserved P13 kinase-Akt, and MAP kinase signaling pathways. Studies of rats and mice have shown that running wheel exercise and IF increase BDNF expression in several regions of the brain, and that BDNF in part mediates exercise- and IF-induced enhancement of synaptic plasticity, neurogenesis and neuronal resistance to injury and disease BDNF signaling in the brain may also mediate behavioral and metabolic responses to fasting and exercise including regulation of appetite, activity levels, peripheral glucose metabolism and autonomic control of the cardiovascular and gastrointestinal systems (Mattson, 2012a, b, Rothman et al., 2012).

Hunger is an adaptive response to food deprivation that involves sensory, cognitive and neuroendocrine changes which motivate and enable food seeking behaviors. It has been proposed that hunger-related neuronal networks, neuropeptides and hormones play pivotal roles in the beneficial effects of energy restriction on aging and disease susceptibility. As evidence, when mice in which the hypothalamic 'hunger peptide' NPY is selectively ablated are maintained on a CR diet, the ability of CR to suppress tumor growth is abolished (Shi et al., 2012). The latter study further showed that the ability of CR to elevate circulating adiponectin levels was also compromised in NPV-deficient mice, suggesting a key role for the central hunger response in peripheral endocrine adaptations to energy restriction. Adiponectin levels

increase dramatically in response to fasting, and data suggest roles for adiponectin in the beneficial effects of IF on the cardiovascular system (Wan et al, 2010). The hunger response may also improve immune function during aging as ghrelin-deficient mice exhibit accelerated thymic involution during aging, and treatment of middle age mice with ghrelin increases thymocyte numbers and improves the functional diversity of peripheral T cell subsets (Peng et al., 2012). In addition to its actions on the hypothalarnus and peripheral endocrine cells, fasting may increase neuronal network activity in brain regions involved in cognition, resulting in the production of BDNF, enhanced synaptic plasticity and improved stress tolerance (Rothman et al., 2012). Thus, hunger may be a critical factor involved in widespread central and peripheral adaptive responses to the challenge of food deprivation for extended time periods.

Fasting, aging, and disease in rodent models

Different fasting methods and aging

The major differences between IF and PF in mice are the length and the frequency of the fast cycles. IF cycles usually last 24 hours and are one to a few days apart, whereas PF cycles last 2 or more days and are at least 1 week apart, which is necessary for mice to regain their normal weight. One difference in the molecular changes caused by different fasting regimes is the effect on a variety of growth factors and metabolic markers, with IF causing more frequent but less pronounced changes than PF. It will be important to determine how the frequency of specific changes such as the lowering of IGF-1 and glucose affect cellular protection, diseases and longevity. The most extensively investigated IF method in animal studies of aging has been alternate day fasting (food is withdrawn for 24 hours on alternate days, with water provided ad libitum) (Varady and Hellerstein, 2007). The magnitude of

the effects of alternate day fasting on longevity in rodents depends upon the species and age at regimen initiation, and can range from a negative effect to as much as an 80% lifespan extension (Arum et al., 2009, Goodrick et al., 1990). IF every other day extended the lifespan of rats more than fasting every 3rd or 4th day (Carlson and Hoelzel, 1946), Fasting for 24 hours twice weekly throughout adult life resulted in a significant increase in lifespan of black-hooded rats (Kendrick, 1973). In rats, the combination of alternate day fasting and treadmill exercise resulted in greater maintenance of muscle mass than did IF or exercise alone (Sakamoto and Grunewald, 1987). Interestingly, when rats were maintained for 10 weeks on a PF diet in which they fasted 3 consecutive days each week, they were less prone to hypoglycemia during 2 hours of strenuous swimming exercise as a result of their accumulation of larger intramuscular stores of glycogen and triglycerides (Favier and Koubi, 1988). Several major physiological responses to fasting are similar to those caused by regular aerobic exercise including increased insulin sensitivity and cellular stress resistance, reduced resting blood pressure and heart rate, and increased heart rate variability as a result of increased parasympathetic tone (Anson et al., 2003; Mager et al., 2006, Wan et al., 2003). Emerging findings suggest that exercise and IF retard aging and some age-related diseases by shared mechanisms involving improved cellular stress adaptation (Stramahan and Mattson, 2012). However, in two different mouse genetic backgrounds, IF did not extend mean lifespan and even reduced lifespan when initiated at 10 months (Goodrick et al., 1990). When initiated at 1.5 months, IF either increased longevity or had no effect (Figure ID) (Goodrick et al., 1990). These results in rodents point to conserved effects of fasting on lifespan, but also to the need for a much better understanding of the type of fasting that can maximize its longevity effects and the mechanisms responsible for the

detrimental effects that may be counterbalancing its anti-aging effects. For example, one possibility is that fasting may be consistently protective in young and middle aged laboratory rodents that are either gaining or maintaining a body weight, but may be detrimental in older animals that, similarly to humans, begin to lose weight prior to their death. Notably, whereas bacteria, yeast and humans can survive for several weeks or more without nutrients, most strains of mice are unable to survive more than 3 days without food. The age-dependent weight loss may make this sensitivity to long periods of fasting worse.

Fasting and cancer

Fasting can have positive effects in cancer prevention and treatment. In mice, alternate day fasting caused a major reduction in the incidence of lymphomas (Descamps et al., 2005) and fasting for 1 day per week delayed spontaneous tumorigenesis in p53-deficient mice (Berrigan et al., 2002). However, the major decrease in glucose, insulin and IGF-1 caused by fasting, which is accompanied by cell death and/or atrophy in a wide range of tissues and organs including the liver and kidneys, is followed by a period of abnormally high cellular proliferation in these tissues driven in part by the replenishment of growth factors during refeeding. When combined with carcinogens during refeeding, this increased proliferative activity can actually increase carcinogenesis and/or pre-cancerous lesions in tissues including liver and colon (Tessitore et al., 1996). Although these studies underline the need for an in depth understanding of its mechanisms of action, fasting is expected to have cancer preventive effects as indicated by the studies above and by the findings that multiple cycles of periodic fasting can be as effective as toxic chemotherapy in the treatment of some cancers in mice (Lee et al., 2012).

Annmal data from multiple laboratories indicate that the combination of fasting cycles with chemotherapy is highly and consistently effective in enhancing chemotherapeutic Index and has bigh translation potential. A nunsber of ongoing trials should soon begin to determine the efficacy of fasting in enhancing cancer treatment in the clinic.

Fasting andneurodegenration

Several interrelated cellular mechanisms contribute to the beneficial effects of intermittent fasting on the nervous system including reduced accumulation of oxidatively damaged molecules, improved cellular bioenergetics, enhanced neurotrophic factor signaling, and reduced inflammation (Mattson, 2012a). The latter neuroprotective mechanisms are supported by studies showing that IF diets boost levels of antioxidant defenses, neurotrophic factors (BDNF and FGF2) and protein chaperones (11SP-70 and GRP-78), and reduce levels of pro-inflammatory cytokines (TNFO, IL-1 and IL-6) (Figure 4) (Arumugam et al, 2010). IF may also promote restoration of damaged nerve cell circuits by stimulating synapse formation and the production of new neurons from neural stem cells (neurogenesis) (Lee et al., 2002) Interestingly, while beneficial in models of most neurodegenerative conditions, there is evidence that fasting can hasten neurodegeneration in some models of inherited amyotrophic lateral sclerosis, perhaps because the motor neurons affected in those models are unable to respond adaptively to the moderate stress imposed by fasting (Mattson et al., 2007; Pedersen and Mattson, 1999).

Fasting and the metabolic syndrome

Metabolic syndrome (MS), defined as abdominal adiposity, combined with insulin resistance, elevated triglycerides and/or hypertension, greatly increases the risk of cardiovascular disease, diabetes, stroke and AD. Rats and mice maintained under the usual ad libitum feeding condition develop an MS-like

phenotype as they age. MS can also be induced in younger animals by feeding them a diet high in fat and simple sugars (Martin et al., 2010). IF can prevent and reverse all aspects of the M5 in rodents abdominal fat, inflammation and blood pressure are reduced, insulin sensitivity is increased, and the functional capacities of the nervous, neuromuscular and cardiovascular systems are improved (Castello et al., 2010, Wan et al., 2003). Hyperglycemia is ameliorated by IF in rodent models of diabetes (Pedersen et al., 1999) and the heart is protected against ischemic injury in myocardial infarction models (Ahmet et al., 2005). A protective effect of fasting against ischemic renal and liver injury occurs rapidly, with 1-3 days of fasting improving functional outcome and reducing tissue injury and mortality (Mitchell et al., 2010). Six days on a diet missing just a single essential amino acid such as tryptophan can also elicit changes in metabolism and stress resistance, similar to those caused by fasting, which are dependent on the amino acid sensing kinase Gen2 (Peng et al., 2012).

Fasting, aging, and disease in humans

Fasting and factors implicated in aging

Clinical and epidemiological data are consistent with an ability of fasting to retard the aging process and associated diseases. Major factors implicated in aging whose generation are accelerated by gluttonous lifestyles and slowed by energy restriction in humans include: 1) oxidative damage to proteins, DNA and lipids, 2) inflammation; 3) accumulation of dysfunctional proteins and organelles; and 4) elevated glucose, insulin and IGF-I, although IGF-I decreases with aging and its severe deficiency can be associated with certain pathologies (Bishop et al., 2010; Fontana and Klein, 2007). Serum markers of oxidative damage and inflammation as well as clinical symptoms are reduced over a period of 2-4 weeks in asthma patients maintained on an alternate day fasting

diet (Johnson et al., 2007). Similarly, when on a 2 days/week fasting diet overweight women at risk for breast cancer exhibited reduced oxidative stress and inflammation (Harvie et al, 2011) and elderly men exhibited reductions in body weight and body fat, and improved mood (Teng et al., 2011). Additional effects of fasting in human cells that can be considered as potentially 'anti-aging are inhibition the mTOR pathway, stimulation of autophagy and ketogenesis (Harvie et al., 2011; Sengupta et al., 2010).

Among the major effects of fasting relevant to aging and diseases are changes in the levels of IGF-1, IGFBP1, glucose, and insulin. Fasting for 3 or more days causes a 30% or more decrease in circulating insulin and glucose, as well as rapid decline in the levels of insulin- like growth factor 1 (IGF-1), the major growth factor in mammals, which together with insulin is associated with accelerated aging and cancer (Fontana et al., 2010). In humans, five days of fasting causes an over 60% decrease in IGF-land a 5-fold or higher increase in one of the principal IGF-1-inhibiting proteins: IGFBPI (Thissen et al., 1994a). This effect of fasting on IGF-1 is mostly due to protein restriction, and particularly to the restriction of essential amino acids, but is also supported by calore restriction since the decrease in Insulin levels during fasting promotes reduction in IGF-1(Thien at al, 1994). Notably, in humans, chronic calorie restriction does not lead to a decrease in IGFI Funto centred with protein restriction (Foman et al., 2008)

IF can be achieved in with a minimal decrease is overall caloric interding period in which subjects over eat is considered. Thus, fasting cycles provide a much more feasible strategy to achieve the beneficial effects of CR, and posibly stronger effect without the burden of chronic under feeding and some of the potentially adverse effects assocaited with weight loss or very low BMIS. In fact, subjects who are moderately overweight (BMI of 25-30) in later life can

have reduced overall mortality risk compared to subjects of normal weight (Flegal et st, 2013) Although these results may he affected by the presence of many existing or developing pathologies in the low weight control group. They underline the necessity to differentiate between young individuals and elderly Individuals who may use CR of fasting to reduce weight or delay aging. Although extreme dietary interventions during old age may continue to protect from age-related diseases, they could have detrimental effects on the immune system and the ability to respond to certain infectious diseases, wounds and other challenges (Kristan, 2008, Reed et al., 19961 However, IF or PF designed to avoid weight loss and maximize nourishment have the potential to have beneficial effects on infectious diseases, wounds and other insults even in the very old. Nourishment of subjects can be achieved by complementing IF or PF with micro- and macro Studies to test the effect of IF or PF regimens on markers of aging, cancer cognition and obesity are in progress (V. Longo and M. Mattson). The same may be true for prolonged fasting under supervision.

Fasting and cancer

Fasting has the potential for applications in both cancer prevention and treatment. Although no human data are available on the effect of IF or PF in cancer prevention, their effect on reducing IGF-1, insulin and glucose levels, and increasing IGFBPI and ketone body levels could generate a protective environment that reduces DNA damage and carcinogenesis, while at the same time creating hostile conditions for tumor and pro-cancerous cells. In fact, elevated circulating IGF-1 is associated with increased risk of developing certain cancers (Chan et al., 2000, Giovannucci et al., 2000) and individuals with severe IGF-Ideficiency caused by growth hormone receptor deficiency, rarely develop cancer (Gurvar-Agare et al., 2011; Shevah and Laron, 2007, Steuerman et al., 20111 Furthermore, the serum from these IGF-Ideficient

subjects protected human epithelial cells from oxidative stress-induced DNA damage. Furthermore, once their DNA became damaged, cells were more likely to undergo programmed cell death (Guevara-Agurre et al, 2011). Thus, fasting may protect from cancer by reducing cellular and DNA damage but also by enhancing the death of pre-cancerous cells.

In a preliminary staly of 10 subjects with a variety of malignancies, the combination of chemotherapy with fasting resulted in a decrease in a range of self-reported common side effects caused by chemotherapy compared to the same subject receiving chemotherapy while on a standard diets, 2009). The effect of fasting on chemotherapy toxicity and cancer progression is now being tested in chimical trials in both Europe and the US (0S-08-9,05-10-3)

Fasting and neurodegeneration

Our current understanding of the impact of IF on the nervous system and cognitive functions is largely inferred from above) interventional studies to determine the impact of fasting on brain functions and neurodegenerative disease processes are lacking. After 3-4 month, CR improved cognitive function (verbal memory) in overweight women (Kretsch et al., 1997) and in elderly subjects (Witte et al., 2009). Similarly, when subjects with mild cognitive impairment were maintained for 1 month on a low glycemic diet, they exhibited improved delayed visual memory, cerebrospinal fluid biomarkers of Aβ metabolism and brain bioenergetics (Bayer-Carter et al., 2011). Studies in which cognitive function, regional brain volumes, neural network activity, and biochemical analyses of cerebrospinal fluid are measured in human subjects before and during an extended period of IF should clarify the impact of IF on human brain structure and function.

Fasting, inflammation and hypertension

In humans, one of the best demonstrations of the beneficial effects of long-term fasting lasting one to 3 weeks is in the treatment of rheumatoid arthritis (RA). In agreement with the results in rodents, there is little doubt that during the period of fasting both inflammation and pain are reduced in RA patients (Muller et al., 2001). However, after the normal diet is resumed, inflammation returns unless the fasting period is followed by a vegetarian diet (Kjeldsen-Kragh et al., 1991), a combination therapy that has beneficial effects lasting for two years or longer (Kjeldsen-Kragh et al., 1994). The validity of this approach is supported by four differently controlled studies, including two randomized trials (Muller et al., 2001). Therefore, fasting combined with a vegetarian diet and possibly with other modified diets provides beneficial effects in the treatment of RA. Alternate day IF also resulted in significant reductions in serum TNFα and ceramides in asthma patients during a 2 month period (Johnson et al., 2007). The latter study further showed that markers of oxidative stress often associated with inflammation (protein and lipid oxidation) were significantly reduced in response to IF. Thus, for many patients able and willing to endure long-term fasting and to permanently modify their diet, fasting cycles would have the potential to not only augment but also replace existing medical treatments.

Water only and other forms of long-term fasting have also been documented to have potent effects on hypertension. An average of 13 days of water only fasting resulted in the achievement of a systolic blood pressure (BP) below 120 in 82% of subjects with borderline hypertension with a mean 20 mm Hg reduction in BP (Goldhamer et al., 2002). BP remained significantly lower compared to baseline even after subjects resumed the normal diet for an average of 6 days (Goldhamer et al., 2002). A small pilot study of patients with hypertension (140 mm and above systolic BP) also showed that 10-11 days of

fasting caused a 37-60 mm decrease in systolic BP (Goldhamer et al., 2001). These preliminary studies are promising but underscore the need for larger controlled and randomized clinical studies that focus on periodic fasting strategies that are feasible for a larger portion of the population.

For both hypertension and RA it will be important to develop PF mimicking diets that are as effective as the fasting regimens described above but that are also tolerable by the great majority of patients.

Fasting and the metabolic syndrome

Periodic fasting can reverse multiple features of the metabolic syndrome in humans: it enhances insulin sensitivity, stimulates lipolysis and reduces blood pressure. Body fat and blood pressure were reduced and glucose metabolism improved in obese subjects in response to an alternate day modified fast (Klempel et al., 2013; Varady et al., 2009). Overweight subjects maintained for 6 months on a twice weekly IF diet in which they consumed only 500-600 calories on the fasting days, lost abdominal fat, displayed improved insulin sensitivity and reduced blood pressure (Harvie et al., 2011). Three weeks of alternate day fasting resulted in reductions in body fat and insulin levels in normal weight men and women (Heilbronn et al., 2005) and Ramadan fasting (2 meals/day separated by approximately 12 hours) in subjects with MS resulted in decreased daily energy intake, decreased plasma glucose levels and increased insulin sensitivity (Shariatpanahi et al., 2008). Subjects undergoing coronary angiography who reported that they fasted regularly exhibited a lower prevalence of diabetes compared to non-fasters (Horne et al., 2012). Anti- metabolic syndrome effects of IF were also observed in healthy young men (BMI of 25) after 15 days of alternate day fasting: their whole-body glucose uptake rates increased significantly, levels of plasma ketone bodies and adiponectin were elevated, all of which occurred without a significant

decrease in body weight (Halberg et al., 2005). The latter findings are similar to data from animal studies showing that IF can improve glucose metabolism even with little or no weight change (Anson et al., 2003) It will be important to determine if longer fasting periods which promote a robust switch to a fat breakdown and ketone body-based metabolism, can cause longer lasting and more potent effects.

Conclusions and Recommendations -

This study conclusively proves that Dada Guru consumed no food/calories/ nutrients during the study. He endured this strict fasting and 25-30 km of strenous walking in hot summer weather (42-45^{0}C) without any problem. From start to end of study his physical mental, investigative parameters (including biochemical) did not show any significant aberrations. In our opinion this response to strict fasting and strenuous physical activity is unique and neither to unreported in world medical literature probable mechanisms, our hypotheses and applied importance of this study for public and society at large is discussed.

Based on the existing evidence from animal and human studies, we conclude that there is great potential for lifestyles that incorporate periodic fasting during adult life to promote optimal health and reduce the risk of many chronic diseases, particularly for those who are overweight and sedentary. Animal studies have documented robust and replicable effects of fasting on health indicators including greater insulin sensitivity, and reduced levels of blood pressure, body fat, IGF-1, insulin, glucose, atherogenic lipids and inflammation. Fasting regimens can ameliorate disease processes and improve functional outcome in animal models of disorders that include myocardial infarction, diabetes, stroke, AD and PD. One general mechanism of action of fasting is that it triggers adaptive cellular stress responses, which result in an

enhanced ability to cope with more severe stress and counteract disease processes. In addition, by protecting cells from DNA damage, suppressing cell growth and enhancing apoptosis of damaged cells, fasting could retard and/or prevent the formation and growth of cancers.

However, studies of fasting regimens have not been performed in children, the very old and underweight individuals, and it is possible that IF and PF would be harmful to these populations. Fasting periods lasting longer than 24 hours and particularly those lasting 3 or more days should be done under the supervision of a physician and preferably in a clinic. IF- and PF-based approaches towards combating the current epidemics of overweight, diabetes and related diseases should be pursued in human research studies and medical treatment plans. Several variations of potential "fasting prescriptions' that have been adopted for overweight subjects revolve around the common theme of abstaining from food and caloric beverages for at least 12-24 hours on one or more days each week or month, depending on the length, combined with regular exercise. For those who are overweight, physicians could ask their patients to choose a fasting-based intervention that they believe they could comply with based upon their daily and weekly schedules. Examples include the '5:2' IF diet (Harvie et al., 2011), the alternate day modified fasting diet (Johnson et al., 2007; Varady et al., 2009), a 4-5 day fast or low calorie but high nourishment fasting mimicking diets once every 1-3 months followed by the skipping of one major meal every day if needed (V. Longo, clinical trial in progress). One of the concerns with unbalanced alternating diets such as those in which low calorie intake is only observed for 2 days a week are the potential effects on circadian rhythm and the endocrine and gastrointestinal systems, which are known to be influenced by eating habits. During the first 4-6 weeks of implementation of the fasting regimen, a physician or registered dietitian should be in regular

contact with the patient to monitor their progress and to provide advice and supervision.

Fasting regimens could also be tailored for specific diseases as stand-alone or adjunct therapies. Results of initial trials of IF (fasting 2 days per week or every other day) in human subjects suggest that there is a critical transition period of 3-6 weeks during which time the brain and body adapt to the new eating pattern and mood is enhanced (Harvie et al., 2011; Johnson et al., 2007). Though speculative, it is likely that during the latter transition period brain neurochemistry changes so that the "addiction' to regular consumption of food throughout the day is overcome. Notably, the various fasting approaches are likely to have limited efficacy particularly on aging and conditions other than obesity unless combined with diets such as the moderate calorie intake and mostly plant-based Mediterranean or Okinawa low protein diets (0.8 g protein/Kg of body weight), consistently associated with health and longevity.

In the future, it will be important to combine epidemiological data, studies of long-lived populations and their diets, results from model organisms connecting specific dietary components to pro-aging and pro-disease factors, with data from studies on fasting regimens in humans, to design large clinical studies that integrate fasting with diets recognized as protective and enjoyable. A better understanding of the molecular mechanisms by which fasting affects various cell types and organ systems should lead to the development of novel prophylactic and therapeutic interventions for a wide range of disorders. These types of prolonged fasting and strenuous physical activity should be done only under strict medical supervision.

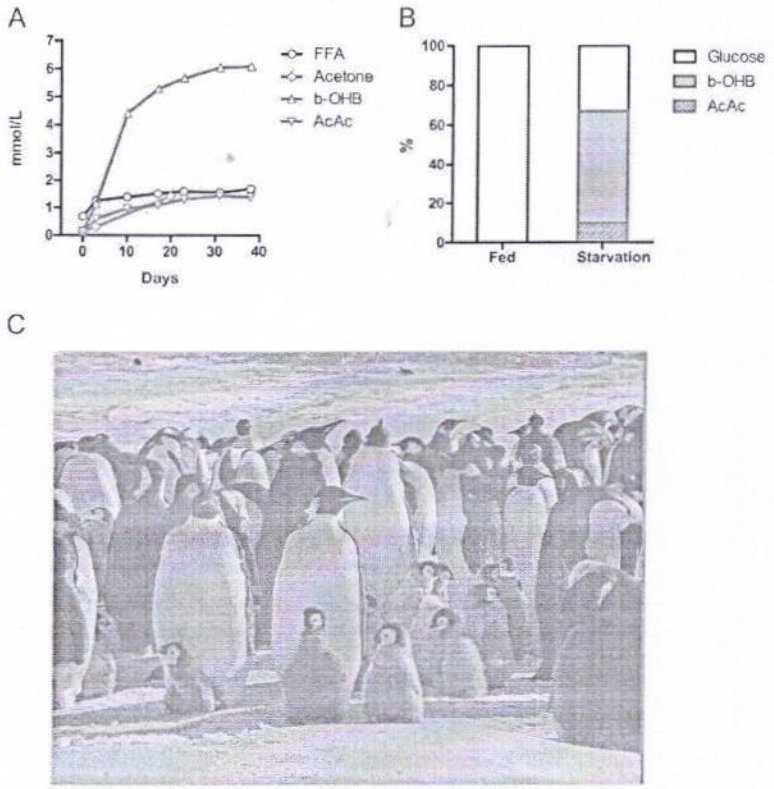

Figure 3. Fasting in mammals

A) Concentrations of ketone bodies (acetone, β-hydroxybutyric acid, acetoacetic acid) and plasma free fatty acids (FFA) during 40 days of fasting in humans. Note the more than three orders of magnitude change in β-hydroxybutyrate and the doubling of FFA; B) Brain substrate utilization in three fasting obese volunteers after several weeks of food deprivation. Many studies suggest that human brain cells can survive with little to no glucose, but this has not been clearly demonstrated (Redrawn from: (Cahill, 2006)). C) Emperor penguins can fast for periods lasting for over 5 months. The picture shows Emperor penguins and their chicks a few weeks before fledging (courtesy of Yvone le Maho). The parents go back and forth between the open sea and their colony on sea ice, next to a glacier, which offers protection against wind, to regurgitate food conserved in their stomach to feed their chicks while they are themselves fasting. Fasting penguins undergo 3 phases (Le Maho et al., 1976; Le Maho et al., 1981; Robin et al., 1987). The first phase (phase I) represents a transition between the fed state and starvation, during which the penguin stops utilizing diet-derived energy. This phase, which lasts between several hours and several days, is characterized by a rapid decrease in protein loss. The following phase (phase II), is a ketotic phase associated with protein sparing which can last for several days in rats to several months in obese geese, king penguin chicks, bears, and seals (Adams and Costa, 1993; Atkinson and Ramsay, 1995; Castellini and Rea, 1992; Cherel et al., 1991; Cherel and Groscolas, 1999; Cherel and Le Maho, 1985; Cherel et al., 1988a; Cherel et al., 1988b; Fond et al., 2013; Reilly, 1991; Robin et al., 1987; Robin et al., 1988). Phase III is brief, since the high protein loss leads to death. During phase III glucose and total plasma protein levels are reduced, and uric acid increases while ketone bodies values remain low. Wild animals that fast for long periods are efficient at sparing proteins during long periods of fasting, with only 2–10% of total energy coming from proteins versus the 20–40% in species less adapted to fasting.

Detailed Analysis of 'Narmada Water' consumed by Shri Dada Guruji during the research period of his prolonged fasting

The detailed analysis of above mentioned Narmada Water was doen by Pathology Deptt. of NSCB Medical College and M.P. Council of Science and Technology, Bhopal. Detailed report is enclosed in "attachment" at the end of report. Salient features of the report and their significance is described below:-

1. Taste and odour of the water sample was nice (agreeable).
2. Ph of water was 7.4 (alkaline) which is good for human health.
3. The total concentration of dissolved solids, calcium, magnesium, hardness was in acceptable range.
4. Phenol compounds, sulfide, boron, pesticides were absent. Cadmium, lead, mercury, arsenic also absent.
5. Iron, chloride, fluroride, were in acceptable range.
6. Cyanide, Ammonia, Barium, Selenium, Aromatic hydrocarbons, aluminium were absent.
7. Microbiology tests showed low colony count of Coliform organisms and no E-Coli organisms.
8. No Radioactive substnces were defected.
9. NSCB Pathology reports showed no glucose, sucrose, protein, sodium, potassium were in micro quantities.

Above analysis proves that 'Narmada Water' is pure, safe and acceptable source of drinking water. Many Trace elements and micronutrients are in small amounts. There are no harmful substances. If this water is consumed for long period of time persons can get benefitted by this. Dada Guruji himself is consuming this water since many years and is completely healthy.

Note:This water has not been subjected to boiling or to any water purifying process (RO etc) and just traditional method of filtering by fine seaved clean cloth was used.

श्री दादागुरू द्वारा शोधकार्य के समय ग्रहण किये गये नर्मदा जल का सूक्ष्म परीक्षण तथा विश्लेषण

श्री दादा गुरू पर किये गये शोधकार्य की अवधि में उनके द्वारा ग्रहण (पीने) किये जाने वाले जल का सूक्ष्म परीक्षण एवं विश्लेषण मेडीकल कॉलेज, जबलपुर के अतिरिक्त एम.पी. कौंसिल आफ साइंस टेक्नोलाजी भोपाल द्वारा भी करवाया गया। विस्तृत रिपोर्ट संलग्न है (attachments में) इस रिपोर्ट के कुछ मुख्य बिन्दु यहां लक्षित किये जा रहे हैं।

1. जल का स्वाद एवं गंध रूचिकर स्वीकार्य थी।
2. Ph-alkaline का (7.4) जो स्वास्थ्य के लिए बेहतर होता है।
3. इसमें कुल धुले हुए सालिड तत्वों की सांद्रता, केल्सियम, मेग्नीशियम, नाइट्रेट (NO_3), हाईनेस सही मात्रा में स्वकार्य मात्रा में थी।
4. आयरन (Iron), क्लोराइड, फ्लोराड, सल्फेट की उचित स्वीकार्य मात्रा में थे।
5. केडमियम, लेड (सीसा), मरकरी, आर्गेनिक, बिल्कुल नहीं थे।
6. फिनाल कम्पाउंड, सल्फाइड, बोरस, पेस्टीसाइड्स नहीं पाये गये)
7. माइक्रोबाइलाजी टेस्ट में बहुत कम मात्रा में कोलीफार्म थे तथा ईकोलाई E-Coli बिल्कुल नहीं थे।
8. साइनाइड, अमोनिया, बेरियम, सेलेनियम, कालीब्डीनम, एरोमेटक हाइड्रोकार्बन, एल्युमीनियम नहीं थे।
9. रेडियोधर्मी पदार्थ भी नहीं पाये गये।

10. जल में ग्लुकोज, सुक्रोज, प्रोटीन नहीं थे, सोडियम, पोटेशियम की माइक्रो क्वांटिटी थी। (न्यून स्तर)

उपरोक्त विश्लेषण से प्रतिपादित होता है कि नर्मदा जल शुद्धता की कसौटी पर खरा उतरा है तथा उसमें अनेक 'ट्रेस एलीमेंट' कम मात्रा में है, हानिकारक पदार्थ बिल्कुल नहीं हैं, अतः दीर्घ समय तक इस जल को ग्रहण करने से शारीरिक लाभ होगा। दादा गुरू जी इसी जल का सेवन लंबे समय से कर रहे हैं।

नोट– उपरोक्त जल को न तो उबाला गया (boiled) और न ही किसी आधुनिक फिल्टर तकनीक C.R.O. इत्यादि) का उपयोग किया गया।

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Department of Analytical Services

Test Certificate

ULR : TC1242924000004715F
Report No. 020970/A
Report Date : 10/06/2024
LAB ID : EB/021971

Issued To:	Date of Receipt	23/05/2024
Director General,	Analysis starting Date	23/05/2024
MPCST, Bhopal (MP)	Analysis completion Date	10/06/2024

Particulars of Sample Submitted

a) Group Name : Water
b) Sample Name : Drinking Water (As Per IS 10500 : 2012)
c) Brand Name : NA
d) Batch No. : NA
e) Sample quantity : 5Litre
f) Sample Source : Collected by lab Staff Mr. Akshay Vyas
g) Date of Manufacture : Not Applicable/Not specified
h) Best Before : Not Applicable/Not specified

Packing:-
Pack Size : 5Litre
Total Quantity : 5Litre
No. of Packs : 1
Packing Material : Packed

Physical Description : Water was clear, no external impurities were seen.

TEST RESULTS

S.No.	Test Parameter	Test Method	Unit	Result	Regulatc Requirement a 10500 : 2(
General Chemical Parameter					
1	Odour	IS 3025 (Part -5) : 1970 RA 2020	-	Agreeable	Agreeabl
2	Taste	IS 3025 (Part-8):1984 RA 2017	-	Agreeable	Agreeabl
3	pH Value @25°C	IS 3025(Part-11):1983 RA 2022	-	7.4	6.5 - 8.5
4	Turbidity	IS 3025(Part-10):1984 RA 2017	NTU	0.3	MAX. 1.(
5	Total Dissolved Solid	IS 3025(Part-16):1984 RA 2017	mg/L	158	MAX. 50(
6	Calcium (as Ca)	IS 3025(Part-40):1991 RA 2019	mg/L	51.18	MAX. 75.(
7	Free residual Chlorine	IS 3025(Part-26):1986 RA 2021	mg/L	Nil	Min. 0.2
8	Magnesium (as Mg)	IS 3025(Part-46):1994 RA 2019	mg/L	1.04	MAX. 30.(
9	Nitrate (as NO3)	IS 3025(Part-34):1988 RA 2019	mg/L	0.64	MAX. 45
10	Total Alkalinity as calcium Carbonate	IS 3025(Part-23):1986 RA 2019	mg/L	37.5	MAX. 20(
11	Total Hardness (as CaCO3)	IS 3025(Part-21):2009 RA 2019	mg/L	82.59	MAX. 20(

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TC-12429

Department of Analytical Services

Test Certificate

ULR : TC1242924000004715F
Report No. 020970/A Report Date : 10/06/2024 LAB ID : EB/021971

TEST RESULTS

S.No.	Test Parameter	Test Method	Unit	Result	Regulatory Requirement as Per IS 10500 : 2012
12	Iron (as Fe)	IS 3025 (Part-53):2003 RA 2019	mg/L	54.23	MAX. 0.3
13	Chloride	IS 3025(Part-32):1988 RA 2019	mg/L	27.45	MAX. 250
14	Fluoride	IS 3025(Part-60/Sec1) : 2022	mg/L	0.24	MAX. 1.0
15	Sulphate	IS 3025 (Part-24/Sec1) : 2022	mg/L	16.84	MAX. 200
Analysis Results					
16	Cadmium (as Cd)	FSSAI: Manual of Methods of Analysis of Foods: Metals	mg/L	BLQ(LOQ-0.0003)	Max. 0.003
17	Lead (as Pb)	FSSAI: Manual of Methods of Analysis of Foods: Metals	mg/L	BLQ(LOQ-0.001)	Max. 0.01
18	Zinc (as Zn)	FSSAI: Manual of Methods of Analysis of Foods: Metals	mg/L	BLQ(LOQ-0.001)	Max. 5.0
19	Mercury (as Hg)	FSSAI: Manual of Methods of Analysis of Foods: Metals	mg/L	BLQ(LOQ-0.001)	Max. 0.001
20	Nickel (as Ni)	FSSAI: Manual of Methods of Analysis of Foods: Metals	mg/L	BLQ(LOQ-0.002)	Max. 0.02
21	Arsenic (as As)	FSSAI: Manual of Methods of Analysis of Foods: Metals	mg/L	BLQ(LOQ-0.001)	Max. 0.01
22	Chromium (as Cr)	FSSAI: Manual of Methods of Analysis of Foods: Metals	mg/L	BLQ(LOQ-0.005)	Max. 0.05
23	Colour	IS 3025 (Part-4):1983 RA 2021	Hazen	02	Max. 5
24	Oil & Grease	IS 3025 (Part-39):1991 RA 2021	mg/L	0.12	Max. 0.5
25	Phenolic Compounds (as C6H5OH)	IS 3025 (Part-43/Sec1) : 2022	mg/L	BLQ (LOQ-0.0001)	Max. 0.001
26	Sulphide as H2S	IS 3025 (Part-29):1986 RA 2019	mg/L	Not Detected	Max. 0.05
27	Copper (Cu)	FSSAI: Manual of Methods of Analysis of Foods: Metals	mg/L	BLQ(LOQ-0.005)	Max. 0.05
28	Silver (as Ag)	FSSAI manual 2016	mg/L	BLQ(LOQ-0.001)	Max. 0.1
29	Boron (as B)	FSSAI: Manual of Methods of	mg/L	BLQ(LOQ-0.05)	Max. 0.5

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Department of Analytical Services

TC-12429

Test Certificate

ULR : TC1242924000004715F
Report No.020970/A

Report Date : 10/06/2024 LAB ID : EB/021971

TEST RESULTS

S.No.	Test Parameter	Test Method	Unit	Result	Regulatory Requirement as Per IS 10500 : 2012
29		Analysis of Foods: Metals			
30	Aldrin/ Dieldrin	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	0.03
31	Chlorpyrifos	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	30
32	Endosulfan (alpha, beta, and sulphate)	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	0.4
Microbiology Test Parameter					
33	Total Coliform Count	IS 5401(Part- 1): 2012 RA 2022	CFU/100mL	Detected	Shall not be detectable in any 100mL sample
34	Escherichia coli	IS 15185: 2016 RA 2021	CFU/100mL	Not Detected	Shall not be detectable in any 100mL sample

Note: The results relate to the submitted sample only (Sample as received)
BLQ- BELOW LIMIT OF QUANTITATION, LOQ- LIMIT OF QUANTITATION

Opinion: The sample complies to IS 10500:2012 for all the parameteres tested.

End of Report

Reviewed by
Akshay Vyas

Excellent Bio Research Solutions Pvt. Ltd. Jabalpur

Approved By
Dr. Manish Agrawal
Authorized Signatory (Chemical and Biological)

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Department of Analytical Services

Test Certificate

Report No. 020970/B | Report Date : 10/06/2024 | LAB ID : EB/021971

Issued To:		
Director General, MPCST, Bhopal (MP)	Date of Receipt	23/05/2024
	Analysis starting Date	23/05/2024
	Analysis completion Date	10/06/2024

Particulars of Sample Submitted

a) Group Name : Water
b) Sample Name : Drinking Water (As Per IS 10500 : 2012)
c) Brand Name : NA
d) Batch No. : NA
e) Sample quantity : 5Litre
f) Sample Source : Collected by lab Staff Mr. Akshay Vyas
g) Date of Manufacture : Not Applicable/Not specified
h) Best Before : Not Applicable/Not specified

Packing:-

Pack Size : 5Litre | Total Quantity : 5Litre
No. of Packs : 1 | Packing Material : Packed

Physical Description : Water was clear, no external impurities were seen.

TEST RESULTS

S.No.	Test Parameter	Test Method	Unit	Result	Regulatory Requirement as Per IS 10500 : 2012
1	Cyanide	IS 3025 (Part-27):1986 RA 2019	mg/L	BLQ(LOQ-0.005)	Max. 0.05
2	Ammonia (as total ammonia-N)	IS 3025 (Part-34):1988 RA 2019	mg/L	BLQ(LOQ-0.05)	Max. 0.5
3	Aluminum (as Al)	IS 3025 (Part-55):2003 RA 2019	mg/L	BLQ(LOQ-0.0003)	Max. 0.03
4	Anionic detergent (as MBAS)	FSSAI manual 2016	mg/L	BLQ(LOQ-0.02)	Max. 0.2
5	Barium (as Ba)	FSSAI manual 2016	mg/L	BLQ(LOQ-0.07)	Max. 0.7
6	Manganese (as Mn)	IS 3025 (Part-59):2006 RA 2017	mg/L	BLQ(LOQ-0.01)	Max. 0.1
7	Selenium (as Se)	IS 3025 (Part-56):2003 RA 2019	mg/L	BLQ(LOQ-0.001)	Max. 0.01
8	Molybdenum (as Mo)	IS 3025 (Part-2):1983 RA 2019	mg/L	BLQ(LOQ-0.007)	Max. 0.07
9	Polychlorinated biphyenyls	FSSAI manual 2016	mg/L	BLQ(LOQ-0.00005)	Max. 0.0005

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TEST RESULTS

S.No.	Test Parameter	Test Method	Unit	Result	Regulatory Requirement as Per IS 10500 : 2012
10	Polynuclear aromatic hydrocarbons	FSSAI manual 2016	mg/L	BLQ(LOQ-0.00001)	Max. 0.0001
11	Chloramines (as Cl2)	IS 3025 (Part-26):1986 RA 2019	mg/L	BLQ(LOQ-0.04)	Max. 4.0
12	Bromoform	EBRS/SOP/GC - 07	mg/L	BLQ(LOQ-0.001)	Max. 0.1
13	Dibromochloromethane	EBRS/SOP/GC - 07	mg/L	BLQ(LOQ-0.001)	Max. 0.1
14	Bromodichloromethane	EBRS/SOP/GC - 07	mg/L	BLQ(LOQ-0.006)	Max. 0.06
15	Chloroform	EBRS/SOP/GC - 07	mg/L	BLQ(LOQ-0.02)	Max. 0.2
Pesticide Residues					
16	Alachlor	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	20
17	Atrazine	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	2
18	Alpha HCH	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	0.01
19	Beta HCH	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	0.04
20	Butachlor	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	125
21	Delta HCH	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	0.04
22	2,4- Dichlorophenoxyacetic acid	FSSAI Manual of Method of Analysis of Food : Pesticide	mg/L	BLQ(LOQ-0.0001)	30

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Test Certificate

Report No. 020970/B Report Date : 10/06/2024 **LAB ID : EB/021971**

TEST RESULTS

S.No.	Test Parameter	Test Method	Unit	Result	Regulatory Requirement as Per IS 10500 : 2012
22		Residues, 2016			
23	DDT (o, p and p, p - Isomers of DDT, DDE and DDD)	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	1
24	Ethion	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	3
25	Gamma -- HCH (Lindane)	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	2
26	Isoproturon	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	9
27	Malathion	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	190
28	Methyl parathion	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	0.3
29	Monocrotophos	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	1
30	Phorate	FSSAI Manual of Method of Analysis of Food : Pesticide Residues, 2016	mg/L	BLQ(LOQ-0.0001)	2

Note: The results relate to the submitted sample only (Sample as received)
BLQ- BELOW LIMIT OF QUANTITATION, LOQ- LIMIT OF QUANTITATION

Opinion: The sample complies to IS 10500:2012 for all the parameteres tested.

End of Report

Reviewed by
Akshay Vyas

Excellent Bio Research Solutions Pvt. Ltd. Jabalpur

Approved By
Dr. Manish Agrawal
Authorized Signatory (Chemical and Biological)

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Department of Analytical Services

Test Certificate

No.of Page 1

Report Reference No. 020970 Report Date : 10.06.2024 Sample ID : EB/021971

Issued To :		
Director General, MPCST, Bhopal (MP)	Date of Receipt	23.05.2024
	Analysis Starting Date	23.05.2024
	Analysis Completion Date	10.06.2024

Particulars of Sample Submitted

a) Group Name	:	Water
b) Sample Name	:	Drinking Water (As Per IS 10500 : 2012)
c) Brand Name	:	Not Applicable
d) Batch No.	:	Not Applicable
e) Sample Quantity	:	5 Lit.
f) Sample Source	:	Collected by lab Staff Mr. Akshay Vyas
g) Date of Manufacturing	:	Not Applicable/Not specified
h) Best before	:	Not Applicable/Not specified

Physical description: Water was clear, no external impurities were seen.

Analysis Results

Radio active substances

S.No	Parameters	Protocol	Unit	Results	Requirement as per IS 10500:2012
1	Alpha Emitters	IS: 14194 (P-2):2018	Bq/L	BLQ (LOQ-0.01)	Max. 0.1
2	Beta Emitters	IS: 14194 (P-1): 2020	Bq/L	BLQ (LOQ-0.1)	Max. 1.0

BLQ- BELOW LIMIT OF QUANTITATION, LOQ- LIMIT OF QUANTITATION

Note: The results relate to the submitted sample only (Sample as received)

Opinion: The sample complies to IS 10500:2012 for all the parameteres tested.

Review by

Akshay Vyas

Excellent Bio Research Solutions Pvt. Ltd. Jabalpur

Approved by:

Dr. Manish Agrawal
Auth. Sign. (Chemical)

End of Report

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During his hospital stay he has not taken any food/fruits, took 4.5 glass of ueZnk ty (narmada water) (600-800 ml per day. He did not passes motion, his total uring output was 15-20 ml of urine once in night time only.

Result:

Clinical: His clinical parameters during indoor and outdoor in day time, while doing ueZnk ifjØek were remain: Temperature 95.7-98.6 ^{O}f, Pulse 67-116/min regular normal volume tongues and skin dry, skin turgar normal capillary refilling time < 3 sec. BP 107/67-149/77 mmHg. Respiratory rate 16-18 ɔreath/min, SPO_2 96-100% on room air, no perspiration, height, 172 cm weight, 58.10=61.40 kg, BMI 20.75, midarm circumference 29.5mm, waist to hip ratio 0.88, BMR 1509, BEE 6265, no other positive finding in general examination.

Systemic examination Respiratory, CVS, per abdomen and nervous system, mental status doe not reveal any positive finding

Investigation: Biochemical & Radiological

Hb10.90-12.60gm%, TLC 5.24-11.17/3mm, Hct30-39, MCV-66.10-71.50, MCH 23.00-23.80, RDW-Cv 17.10-18.00, TRBC-4.45-5.58,, PLT-277-399, P33-73, L14-39, M10, ESR 15mm

P.S. for comment narmocytic narmochronic

Urea: 16-65mg%, S.Creatinine:0.99-1.77, Sodium: 134, Potasium 5.3,Chloride-102, Calcium:7.12-9.91, phosphorus:3.31-5.30, Lipase:5.77-34, Amylase:71.98-121.06, CPK MB: 23.50-29.80, LDH:136.70-296.40, Trop I: Negative, Uric acid 7.95-8.0, FT3:2.98-4.02,FT_4:0.75-1.17, TSH-2.54-7.26, cortisol:5.61-20 (6.6-22.6 µg/dl), Vit D:40-51.99, Vit B12:130-175,Folic acid:4.75-9.05, Magnesium:1.35-2.34 Iron profile-iron:26-86 , % saturation 11, TIBC 412, ferritin:8.00-15.50, UIBC 3.64, Lipid profile, Serum cholesterol:167-184, triglyceride:73.03-113, HDL:40-56, LDL:112-

130, VLDL.., TC/HDL.., LFT-Serum bilirubin- Total:0.85-2.01 direct:0.13-0.28, indirect:.., SGOT-19.40-42.20, SGPT:8.20-15.20, Serum protein :6.60-8.43, albumin :3.79-4.70, SAP:84-117, Blood sugar:68-131mg%

Trace elements & nutrient Arsenic, Cadmium, mercury lead chromium, barium, cobolt, caesium, thalium, uranium, strontium, antimony, Tin, molybdenum, Bismuth, selenium, aluminium nickel, magnese levels-normal, Beryllium 0.03 µg/mlm ,Iodine 34.9 (40-92), Secum copper-108 µg/dl , Zinc-85.5 µg/dl , Serum adrenaline 57.8 (< 125), Urine: Protein and sugar absent, sp.gr. 1.030, Ketone- Nil, urinary Sodium 22.8 mg/L, PH 6.0, Pus cells 1-2, RBC nil, no cast /crystal, 34

Narmada river water: sugar……,electrolyte….

ATP…, ADP…., antioxidants…, aminoacid…., acylcarnitine…., coenzyme…., citrades…., organic acid…, purine…, serum betahydroxy butyrate….., vitamin B complex (fat soluble….. water soluble…..), acetylcoenzyme…., serum insulin…., glucagon…, HSCRP…..,Leptine….,Grehlin….

ECHO- LA 2.5, AO 2.6 LVED d/s 4.1/2.9, PWD 1.2, IVS D 1.3, RA 1 RV 1.3, Chamber size Normal, valve normal, No MR/TR, No RWMA, EF 62% PAsP & PA-N, IVC 17 mm with good inspiratory collapse.

USG abdomen: no significant abnormality, Colour Doppler both lower limbs (Arterial + venous)- no significant abnormality, ABG Ph 7.39, PCO_2 34.4, PaO_2- 119.3, HCC_3 21.3, BE 4.5 SO_2 98.2%, Anion gap 12.1 Chloride 108. Holter monitoring- no clinically significant arrhythmia, H.R. 75-150/min

Monitoring Chart

Name: Shri Dadaguru	Age: 45 years	Sex: Male	Date 22/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00AM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temp. °F														Afebrile			Afebrile		Afebrile					
Pulse(/min)														88			90		92					
BP (mm of Hg)														133/91			130/90		102/69					
RR/ min														16			15		14					
SPO2 (%)														99			99		99					
Intake														Nil			Nil		Nil					
Urine output														Nil			Nil		15 ml					
Bowel Habit														Nil			Nil		Nil					
Sleep																				1,3 an Sleeping hours				6.20 PM
Hydration														Nil			Nil		-					-
Tongue														Dry			Dry		Dry					Normal
Skin turger														Normal			Normal		Normal					
CRT														Normal			Normal		Normal					
Blood Sugar (Glucometer)																								61mg/dl
Urine Ketone																			Neg.					
Weight (kg)														61.03kg										61.40 kg

Name of RMO		
	8.00AM to 4.00PM\	
	4:00PM to 12.00AM	Dr. Aadil Khan
	12:00AM to 8.00AM	Dr. Sandeep Tiwari

Monitoring Chart

Name: Shri Dadaguru	Age: 45 years	Sex: Male	Date 23/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00PM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature	Afeb.						Afeb.				Afeb.		Afeb		Afeb			Afeb.						
Pulse	80						83				103		89		100			95						
Blood pressure	112/72						149/77				128/81		118/80		126/80			123/81						
Resp. Rate	16						18				16		16		16			16						
SPO2	98%						96%				96%		97%		99%			99%						
Intake	100 ml water						Nil				Nil		Nil		100 ml water			Nil						
Urine output	Nil						Nil				Nil		Nil		Nil			Nil						
Bowel Habit	not passed						not passed				not passed		not passed		not passed			not passed						
Sleep							-				-		-		-			-	1-10 Sleeping hours					6.10AM
Hydration							-				-		-		-									
Tongue	Dry						Dry				Dry		Dry		Dry			Dry						
Skin turger	Normal						N				N		N		N			N						
CRT	N.						N				N		N		N			N						
Blood Sugar	61						78				120		83		53									
Urine Ketone																								
Weight	61.4														60.1									

Name of RMO				
	8.00AM to 4.00PM\	Dr. Mahendra Mujaldar		
	4:00PM to 12.00AM	Dr. Adil Khan		
	12:00AM to 8.00AM	Dr. Sandeep Tiwari		

Total disttance walked 30 km at 43 ^{o}C

Monitoring Chart

Name: Shri Dada Guru	Age: 45 years	Sex: Male	Date 24/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00AM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature	Afeb			Afeb.					Afeb			Afeb		Afeb		Afeb									
Pulse	90min			90/m					88/m			96/m		95/m											
Blood pressure	109/71			134/66					131/88			132/96		123/84											
Resp. Rate	16			15/min					14/min			14/min		16/min											
SPO2	100%			96%					96%			97%		98%											
Intake	200ml water			-					-			-		-		170ml water									
Urine output	20ml			-					-			-		-		20 ml									
Bowel Habit	-			-					-			-		-											
Sleep	-																	12:40AM	Sleeping						06:10AM
Hydration																									-
Tongue	Dry			Dry					Dry			Dry		Dry		Dry									Dry
Skin turger	N			N					N			N		N		N									N
CRT	N			N					N			N		N		N									N
Blood Sugar (glaucometer)	66mg/dl			66mg/dl					97mg/dl			70mg/dl		117mg/dl											91mg/dl
Urine Ketone	Neg.															Neg.									-
Weight	59.5																								60.15kg.

Name of RMO	8.00AM to 4.00PM\	Dr. Nikhil Giri		
	4:00PM to 12.00AM			
	12:00AM to 8.00AM	Dr. Sandeep Tiwari		

Total distance walk 33 km at 43°C

Monitoring Chart

Name: Shri Dada Guru | Age: 45 years | Sex: Male | Date 25/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00PM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature	98 °F				98				98.7				98.5		98.6			95.7						Afeb
Pulse	67/m				116				91				101		97			86						76
Blood pressure	106/70				136/86				127/78				134/86		115/72			114/74						101/67
Resp. Rate	16				18				16				16		16			16						16
SPO2	100%				98%				98%				98%		100%			98%						100%
Intake	200ml+ 200ml				Nil				Nil				Nil		3 glass water			2 glass water						2glass of water
Urine output	Nil				Nil				Nil				Nil		Nil			Nil						20ml
Bowel Habit	-				-				-				-		-									not passed
Sleep	-														-			1.00AM sleeping						6:20AM
Hydration																								-
Tongue	Dry				Dry				Dry				Dry		Dry			Dry						Dry
Skin turger	N				N				N				N		N			N						not passed
CRT	N				N				N				N		N			N						N
Blood Sugar (glaucometer)	91				91				62				62		124									124
Urine Ketone	-														-									Neg.
Weight	60.15														60.6									60.15kg.

Name of RMO	8.00AM to 4.00PM\	Dr. Virendra Singhuare			
	4:00PM to 12.00AM				
	12:00AM to 8.00AM	Dr. Sandeep Tiwari			

Total distance walked 40 km at 44 °C

Monitoring Chart

Name: Shri Dada Guru | Age: 45 years | Sex: Male | Date 26/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00AM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature	95.8			96.6						96.2			96	Afeb.		Afeb								96
Pulse	76			97						98			98	98		98								70
Blood pressure	101/67			120/80						114/90			110/70	125/70		125/70								108/72
Resp. Rate	16			15						14			14	14		14								15
SPO2	100%			97%						98%			99%	98%		98%								99%
Intake	1 glass water													1 glass water	300ml water	1 glass water								2-1/2 glass water
Urine output	Nil			Nil						Nil			Nil	Nil	Nil	Nil			Sleeping					Nil
Bowel Habit	not passed			not passed						not passed			not passed	not passed	not passed	not passed								not passed
Sleep	-			-						-			-	-				1.00AM to 6:30 AM (51/2 hours)						
Hydration																								
Tongue	Dry			Dry						Dry			Dry	Dry	Dry	Dry								Dry
Skin turger	N			N						N			N	N	N	N								N
CRT	N			N						N			N	N	N	N								N
Blood Sugar (glaucometer)	124			119						112														137
Urine Ketone	-			-						-			-	-	-	-								-
Weight	60.15			60.15						60.15			60.15	59.8	-	-								6015

Name of RMO	8.00AM to 4.00PM\	Dr. Sai Baba		
	4:00PM to 12.00AM			
	12:00AM to 8.00AM	Dr. Adil Khan		

Total distance: walked 33 km 43°C

Monitoring Chart

Name: Shri Dada Guru	Age: 45 years	Sex: Male	Date 27/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	06:40PM	08:30PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature				35.5°C	35.5°C				35.4		37.2		36.5	36.3				35.9						35.4
Pulse				77	86				90		104		103	80				78						80
Blood pressure				110/78	104/70				104/70		116/70		130/90	126/71				110/69						106/71
Resp. Rate				20	18				18		18		14	16				14						15
SPO2				98%	97%				98%		98%		98%	99%				99%						99%
Intake				Nil	Nil				Nil		Nil		Nil	3 glass water				1 glass H_2O						3glass water
Urine output				Nil	Nil				Nil		Nil		Nil	Nil				Nil						20 ml
Bowel Habit				Nil	Nil				Nil		Nil		Nil	Nil				Nil						not passed
Sleep				-	-				-		-		-	-				-	Sleeping 1:40 AM to 6:30 AM					
Hydration																								
Tongue				Dry	Dry				Dry		Dry		Dry	Dry				Nil						N
Skin turger				N	N				N		N		N	N				Nil						N
CRT				N	N				N		N		N	N				Nil						N
Blood Sugar (glaucometer)				102	75				112		165		131					-						115
Urine Ketone																								Neg.
Weight														-				-						60.75

Name of RMO	8.00AM to 4.00PM\	Dr. Deepak Vadhwani		
	4:00PM to 12.00AM			
	12:00AM to 8.00AM	Dr. Shyam Bhagat		

Total distance walked 30 km 44°C.

Monitoring Chart

Name: Shri Dada Guru	Age: 45 years	Sex: Male	Date 28/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00PM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temp. °C	35.7				36			38.6		36.3		36.3		35.7				35.6						35.3OC
Pulse	80/min				82/min			86/m		72/m		72/m		90/min				65						80
Blood pressure	106/70				100/70			106/70		110/70		110/70		107/69				102/68						109/72
Resp. Rate	18				16			16		18		18		14				14						15
SPO2	99%RA				98%RA			99%		99%		99%		98%				98%						99%
Intake	2 glass of water				Nil			Nil		Nil		Nil		2 glass water				1 glass water						2glass water
Urine output	Nil				Nil			Nil		Nil		Nil		Nil				Nil						15 ml
Bowel Habit	not passed				not passed			not passed		not passed		not passed		not passed				not passed						not passed
Sleep	-				-			-		-		-		-				-	Sleeping 1:30 AM to 6:30 AM (5 hours)					
Hydration																								
Tongue	Dry				Dry			Dry		Dry		Dry		Dry				Dry						Dry
Skin turger	N				N			N		N		N		N				N						N
CRT	N				N			N		N		N		M				N						N
Blood Sugar (glaucometer)	115				118			151		96		96		97				-						98
Urine Ketone	-				-			-		-		-		-				-						Neg.
Weight	60.75				-			-		-		-		59.85 ~~39.85~~				-						59.5

Name of RMO		
	8.00AM to 4.00PM\	Dr. Vaibhav Mandloi
	4:00PM to 12.00AM	Dr. Mahesh Patil
	12:00AM to 8.00AM	Dr. Aadil Khan

Total distance walked 31 km 45°C Temp.

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Monitoring Chart

Name: Shri Dada Guru	Age: 45 years	Sex: Male	Date 29/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:30PM	07:00PM	08:30PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature	35.6				35			35-7	36.5			35		35.7				35.6						35.3OC
Pulse	82				86			86	75			92		85				65						80
Blood pressure	109/72				120/80			120/80	106/70			110/70		109/73				102/68						109/72
Resp. Rate	15				~~126~~ 16			15	15			16		15				14						15
SPO2	99%				98%			98%	97%RA			98%RA		98%RA				98%						99%
Intake	-				Nil			Nil	Nil			Nil		3 glass water				1 glass H_2O						2glass H_2O
Urine output	Nil				Nil			Nil	Nil			Nil		Nil				Nil						Yes
Bowel Habit	not passed				not passed			not passed	not passed			not passed		not passed				not passed						not passed
Sleep	-				-			-	-			-		-				-	Sleeping 1:30 AM to 6:30 AM (5 hours)					
Hydration	N				N			N	N			N		N				N						N
Tongue	Dry				Dry			Dry	Dry			Dry		Dry				Dry						Dry
Skin turger	N				N			N	N			N		N				N						N
CRT	N				N			N	N			N		M				N						N
Blood Sugar (glaucometer)	98				99			90	109mg/dl			90mg/dl		58.1				-						98
Urine Ketone	-				-			-	-			-		-				-						-
Weight	60.75				-			-	-			-		~~39.85~~ 59.8				-						59.5

Name of RMO	8.00AM to 4.00PM\	Dr. Amit Yadav	Nursing Staff	
	4:00PM to 12.00AM	Dr. Mahesh Patil		
	12:00AM to 8.00AM	Dr. Aadil Khan		

		22/5/2024 Time 10:30:25 PM	23/5/2024 Time 03:00:48 AM	23/05/2024 Time 07:33:01 AM	23/5/2024 Time 10:03:24 PM	24/05/2024 Time 07:20:28 AM	24/05/2024 Time 09:25:28 PM	25/05/2024 Time 07:21:40 AM	25/05/2024 Time 07:58:17 PM	26/5/2024 Time 7:34:23 AM	26/5/2024 Time 07:19:19 PM	27/05/2024 Time 07:09:25 AM	27/05/2024 Time 07:50:34 PM	28/5/2024 Time 07:34:57 AM	28/05/2024 Time 08:21:32 PM	29/05/2024 Time 07:23:15 AM
1	E.S.R. Westergren's Method		15 mm/1st hr													
	Complete Blood Count (CBC)															
2	Hemoglobin Spectrophotometry (EDTA blood)	12.30 gm/dl	14.00 gm/dl	12.4 gm/dl	12.90 gm/dl	12.40 gm/dl	12.30 gm/dl	12.60 gm/dl	12.90 gm/dl	11.80 gm/dl	11.70 gm/dl	11.20 gm/dl	10.90 gm/dl	10.90 gm/dl	11.30 gm/dl	10.90 gm/dl
3	RBC Impedence (EDTA whole blood)	5.31 10^6/uL	5.58 10^6/uL	5.39 10^6/uL	5.42 10^6/uL	5.34 10^6/uL	5.18 10^6/uL	5.29 10^6/uL	5.48 10^6/uL	4.98 10^6/uL	4.92 10^6/uL	4.76 10^6/uL	4.75 10^6/uL	4.71 10^6/uL	4.90 10^6/uL	4.59 10^6/uL
4	WBC/TLC Impedence (EDTA whole blood)	7.59 10^3/uL	13.68 10^3/uL	8.49 10^3/uL	11.17 10^3/uL	8.07 10^3/uL	9.64 10^3/uL	7.25 10^3/uL	10.18 10^3/uL	7.69 10^3/uL	8.12 10^3/uL	5.11 10^3/uL	7.74 10^3/uL	5.82 10^3/uL	7.42 10^3/uL	5.24 10^3/uL
5	Absolute Lymphocyte Count(LYMPH) Automated cell counter	2.00 10^3/uL	2.11 10^3/uL	2.7 10^3/uL	2.09 10^3/uL	2.11 10^3/uL	2.43 10^3/uL	2.36 10^3/uL	3.45 10^3/uL	2.63 10^3/uL	2.30 10^3/uL	1.72 10^3/uL	2.55 10^3/uL	2.32 10^3/uL	2.63 10^3/uL	1.92 10^3/uL
6	Absolute Granulocyte Count (GRA) Automated Cell Counte	4.62 10^3/uL	10.08 10^3/uL	4.7 10^3/uL	7.93 10^3/uL	4.97 10^3/uL	5.93 10^3/uL	3.95 10^3/uL	5.57 10^3/uL	4.09 10^3/uL	4.65 10^3/uL	2.67 10^3/uL	4.20 10^3/uL	2.73 10^3/uL	3.96 10^3/uL	2.68 10^3/uL
7	Mid% LIS - Automatic Interfacing	12.80%	10.90%	12.80%	10.30%	12.30%	13.30%	13.00%	11.40%	12.60%	14.40%	2.67%	12.80%	13.20%	11.20%	12.20%
8	Lym% LIS - Automatic Interfacing	26.40%	15.40%	31.80%	18.70%	26.10%	25.20%	32.60%	33.90%	34.20%	28.30%	14.00%	32.90%	39.80%	35.50%	36.70%
9	Gran% LIS - Automatic Interfacing	60.80%	73.70%	55.40%	71.00%	61.60%	61.50%	54.40%	54.70%	53.20%	57.30%	33.70%	54.30%	47.00%	53.30%	51.10%
10	Platelet Count	277.00 10^3/uL	366.00 10^3/uL	269.00 10^3/uL	343.00 10^3/uL	278.00 10^3/uL	399.00 10^3/uL	298.00 10^3/uL	366.00 10^3/uL	323.00 10^3/uL	341.00 10^3/uL	52.30 10^3/uL	323.00 10^3/uL	288.00 10^3/uL	343.00 10^3/uL	295.00 10^3/uL

	Automated Cell Counter															
11	MCV Measured	67.90 fL	67.40 fL	71.50 fL	67.20 fL	69.30 fL	66.90 fL	66.50 fL	66.80 fL	66.70 fL	66.30 fL	272.00 fL	69.60 fL	66.30 fL	66.40 fL	66.10 fL
12	MCH Calculated	23.20 Pg.	23.8 Pg.	23.00 Pg.	23.80 Pg.	23.30 Pg.	23.70 Pg.	23.90 Pg.	23.50 Pg.	23.70 Pg.	23.80 Pg.	67.00 Pg.	23.00 Pg.	23.20 Pg.	23.10 Pg.	23.70 Pg.
13	MCHC Calculated	34.10 gm/dl	35.40 gm/dl	32.20 gm/dl	35.40 gm/dl	33.60 gm/dl	35.40 gm/dl	35.90 gm/dl	35.10 gm/dl	35.50 gm/dl	35.80 gm/dl	23.50 gm/dl	33.10 gm/dl	35.00 gm/dl	34.80 gm/dl	35.90 gm/dl
14	RDW-SD Flowcytometry	40.20 fL	40.40 fL	42.40 fL	39.20 fL	40.60 fL	39.00 fL	39.00 fL	38.30 fL	38.10 fL	38.80 fL	35.10 fL	39.90 fL	38.900 fL	39.90 fL	39.00 fL
15	RDW-CV Flowcytometry	17.70%	17.90%	17.80%	17.40%	17.60%	17.40%	17.60%	17.20%	17.10%	17.60%	17.40%	17.20%	17.60%	18.00%	17.70%
16	HCT Calculated	36.00%	39.50%	38.50%	36.40%	37.00%	34.70%	35.20%	36.60%	33.20%	32.60%	31.90%	33.00%	31.20%	32.50%	30.30%
17	MPV Automated Cell Counter	9.10 fL	9.2 fL	8.7 fL	8.60 fL	8.90 fL	8.6 fL	8.90 fL	8.90 fL	8.70 fL	8.60 fL	8.50 fL	8.50 fL	8.40 fL	8.90 fL	8.40 fL
18	PDW Automated Cell Counter	16.00 fL	15.8 fL	16.10 fL	15.90 fL	16.10 fL	15.90 fL	16.10 fL	16.00 fL	16.10 fL	15.90 fL	15.60 fL	15.90 fL	16.20 fL	16.30 fL	16.30 fL
19	PCT Calculated	0.25%	0.35%	0.23%	0.30%	0.25%	0.29%	0.26%	0.33%	0.28%	0.29%	0.23%	0.28%	0.24%	0.30%	0.25%
20	P-LCC Calculated	56.00%	76.00%	47.00%	56.00%	52.00%	54.00%	56.00%	69.00%	54.00%	56.00%	40.00%	49.00%	44.00%	64.00%	47.00%
21	P-LCR	20.10%	19.80%	17.70%	16.30%	18.60%	15.90%	18.70%	18.80%	16.80%	16.40%	14.70%	15.10%	15.40%	18.80%	16.00%
22	Serum Vitamin B12	138.00 pg/mL	154.00 pg/mL	135 pg/mL	130.00 pg/mL	135.00 pg/mL	141 pg/mL	144.00 pg/mL		154.00 pg/mL	157.00 pg/mL	175.00 pg/mL	150.00 pg/mL	152.00 pg/mL	147.00 pg/mL	152.00 pg/mL
23	Serum vitamin D Serum, CLIA	41.91 ng/mL		40.58 ng/mL	44.57 ng/mL	45.83 ng/mL	51.99 ng/mL	45.41 ng/mL		46.86 ng/mL	50.63 ng/mL	66.68 ng/mL	48.84 ng/mL	48.93 ng/mL	46.45 ng/mL	44.28 ng/mL
24	Serum Folate (Folic Acid) CLIA	4.75 ng/mL		5.08 ng/mL	6.79 ng/mL	8.75 ng/mL	6.69 ng/mL	6.21 ng/mL		7.36 ng/mL		7.26 ng/mL	7.28 ng/mL		9.05 ng/mL	7.95 ng/mL
25	serum Cortisol Serum, CLIA	5.61 ug/dL						16.53 ug/dL		20.22 ug/dL	14.45 ug/dL	18.40 ug/dL		13.60 ug/dL	5.81 ug/dL	14.93 ug/dL
	Thyroid Profile															
26	FT3 CLIA	3.60 ng/dL		3.43 ng/dL	3.15 ng/dL	3.66 ng/dL	3.22 ng/dL	3.15 ng/dL		3.39 ng/dL	3.62 ng/dL	4.02 ng/dL	2.98 ng/dL	3.22 ng/dL	3.47 ng/dL	

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27	FT4 CLIA	0.91 ug/dL		0.93 ug/dL	0.75 ug/dL	0.83 ug/dL	0.89 ug/dL	1.02 ug/dL		1.10 ug/dL	1.17 ug/dL	1.33 ug/dL	1.04 ug/dL	0.95 ug/dL	1.08 ug/dL	1.03 ug/dL
28	TSH CLIA	2.73 uIU/mL		5.63 uIU/mL	2.80 uIU/mL	3.92 uIU/mL	4.47 uIU/mL	7.26 uIU/mL		6.48 uIU/mL	3.72 uIU/mL	3.93 uIU/mL	2.54 uIU/mL	4.00 uIU/mL	3.80 uIU/mL	3.58 uIU/mL
29	Urea Urease-GLDH (Serum)	16.96 mg/dl	33.59 mg/dl	23.43 mg/dl	41.98 mg/dl	44.35 mg/dl	64.16 mg/dl	63.68 mg/dl	65.34 mg/dl	61.46 mg/dl	61.02 mg/dl	64.85 mg/dl	53.44 mg/dl	47.10 mg/dl	41.21 mg/dl	43.02 mg/dl
30	Creatinine	0.99 mg/dL	1.77 mg/dL	1.07 mg/dL	1.67 mg/dL	1.34 mg/dL	1.47 mg/dL	1.38 mg/dL	1.40 mg/dL	1.31 mg/dL	1.51 mg/dL	1.34 mg/dL	1.36 mg/dL	1.30 mg/dL	1.39 mg/dL	1.28 mg/dL
31	Uric acid Uricase PAP	4.07 mg/dL		4.97 mg/dL	1.53 mg/dL		7.79 mg/dL	7.76 mg/dL	8.16 mg/dL	7.53 mg/dL	8.16 mg/dL	8.04 mg/dL	7.95 mg/dL	7.78 mg/dL	8.47 mg/dL	8.70 mg/dL
32	Total Bilirubin DPD	0.85 mg/dL	2.01 mg/dL	1.29 mg/dL	0.22 mg/dL	1.69 mg/dL	1.63 mg/dL	2.13 mg/dL	1.55 mg/dL	1.49 mg/dL	1.90 mg/dL	1.59 mg/dL	1.75 mg/dL	1.52 mg/dL	1.79 mg/dL	1.68 mg/dL
33	Direct Bilirubin DPD	0.13 mg/dL	0.27 mg/dL	0.17 mg/dL	24.40 U/L	0.27 mg/dL	0.25 mg/dL	0.28 mg/dL	0.15 mg/dL	0.26 mg/dL	0.28 mg/dL	0.24 mg/dL	0.24 mg/dL	0.19 mg/dL	0.22 mg/dL	0.23 mg/dL
34	SGOT - AST IFCC	19.40 U/L	27.00 U/L	20.20 U/L	13.20 U/L	24.80 U/L	28.90 U/L	29.50 U/L	42.20 U/L	31.00 U/L	33.80 U/L	28.90 U/L	31.00 U/L	26.90 U/L	34.60 U/L	27.50 U/L
35	SGPT - ALT IFCC	10.90 U/L	13.20 U/L	11.10 U/L	8.20 gm/dL	12.00 U/L	12.80 U/L	12.50 U/L	15.20 U/L	14.20 U/L	14.40 U/L	12.30 U/L	14.40 U/L	12.20 U/L	14.80 U/L	12.50 U/L
36	Total Protein Biuret	7.46 gm/dL	8.43 gm/dL	7.35 gm/dL		7.27 gm/dL	7.56 gm/dL	7.33 gm/dL	8.10 gm/dL	7.17 gm/dL	7.48 gm/dL	6.83 gm/dL	6.78 gm/dL	6.87 gm/dL	7.55 gm/dL	6.60 gm/dL
37	Albumin Spectrophotometry, BCG	4.17 gm/dL	4.67 gm/dL	4.05 gm/dL	4.49 gm/dL	4.12 gm/dL	4.25 gm/dL	4.20 gm/dL	4.70 gm/dL	4.12 gm/dL	4.44 gm/dL	3.98 gm/dL	4.00 gm/dL	3.86 gm/dL	4.30 gm/dL	3.79 gm/dL
38	Serum alkaline phosphtase - ALP ANP-AMP (Serum	99.20 U/L	117.5 U/L	100.10 U/L	106.70 U/L	97.70 U/L	97.90 U/L	100.30 U/L	107.80 U/L	97.00 U/L	98.00 U/L	84.40 U/L	88.20 U/L	86.00 U/L	90.90 U/L	91.60 U/L
39	Triglyceride (TG) GPO-POD	88.12 mg/dL		146.38 mg/dL	123.30 mg/dL	91.90 mg/dL	129.89 mg/dL	113.35 mg/dL	97.99 mg/dL	92.58 mg/dL	84.06 mg/dL	88.67 mg/dL	96.87 mg/dL	73.02 mg/dL	91.79 mg/dL	75.41 mg/dL
40	Glucose - Fasting Hexokinase	68.69 mg/dL	70.28 mg/dL		65.81 mg/dL					131.93 mg/dL						
41	Glucose - Random Hexokinase	68.69 mg/dL		73.59 mg/dL	65.81 mg/dL	79.87 mg/dL	100.01 mg/dL	77.41 mg/dL	71.55 mg/dL	131.93 mg/dL	77.62 mg/dL	81.86 mg/dL	78.79 mg/dL	79.45 mg/dL	77.29 mg/dL	70.41 mg/dL
42	Total Cholesterol CHO-POD	188.51 mg/dL		195.48 mg/dL	202.77 mg/dL	184.60 mg/dL	195.64 mg/dL	201.70 mg/dL	224.69 mg/dL	195.72 mg/dL	200.02 mg/dL	184.00 mg/dL	179.71 mg/dL	174.58 mg/dL	188.75 mg/dL	167.22 mg/dL

43	HDL - Cholesterol Enzymatic Immunoinhibition	54.05 mg/dL		53.24 mg/dL	56.09 mg/dL	51.37 mg/dL	49.51 mg/dL	51.18 mg/dL	56.68 mg/dL	47.48 mg/dL	51.02 mg/dL	45.63 mg/dL	44.09 mg/dL	42.40 mg/dL	46.67 mg/dL	40.37 mg/dL
44	LDL - Cholesterol Calculated	117.00 mg/dL		113.00 mg/dL	122.00 mg/dL	115.00 mg/dL	120.00 mg/dL	128.00 mg/dL	148.00 mg/dL	130.00 mg/dL	132.00 mg/dL	121.00 mg/dL	116.00 mg/dL	118.00 mg/dL	124.00 mg/dL	112.00 mg/dL
45	Serum Calcium Arsenazo III; O-Cresolphthalein complexone; Methylthymol blue	9.01 mg/dL	9.82 mg/dL	8.76 mg/dL	9.91 mg/dL	7.12 mg/dL	9.32 mg/dL	9.21 mg/dL		8.93 mg/dL		2.00 mg/dL	9.08 mg/dL	8.70 mg/dL	9.27 mg/dL	8.73 mg/dL
46	Serum phosphorus Phosphomolybdate/UV	4.36 mg/dL	3.66 mg/dL	4.20 mg/dL	5.30 mg/dL	4.14 mg/dL	4.34 mg/dL	4.57 mg/dL	4.58 mg/dL	3.76 mg/dL	3.67 mg/dL	3.99 mg/dL	3.85 mg/dL		3.31 mg/dL	3.90 mg/dL
47	Serum amylase IFCC (EPS)	121.06 U/L	109.86 U/L	107.48 U/L	97.86 U/L	89.93 U/L	79.32 U/L	80.81 U/L		81.80 U/L		82.10 U/L			80.71 U/L	71.98 U/L
48	Serum lipase Colorimetric	6.71 U/L	7.37 U/L	5.77 U/L	10.51 U/L					34.50 U/L					18.99 U/L	13.66 U/L
49	Serum CPK MB CK IFCC Method Plus Immunoinhibition		26.60 U/L		25.90 U/L	23.50 U/L	25.80 U/L	28.20 U/L				29.80 U/L	23.50 U/L		42.00 U/L	27.90 U/L
50	Serum LDH LDH (L-P) IFCC	173.00 U/L	296.40 U/L	141.70 U/L	181.90 U/L		197.10 U/L	189.30 U/L	377.10 U/L	176.00 U/L		173.90 U/L			210.30 U/L	136.70 U/L
51	IRON TPTZ	23.45 ug/dL	70.79 ug/dL	40.76 ug/dL	54.60 ug/dL	18.09 ug/dL	71.53 ug/dL	129.70 ug/dL	86.40 ug/dL	53.26 ug/dL	67.12 ug/dL	<1	62.97 ug/dL	26.44 ug/dL	40.43 ug/dL	30.28 ug/dL
52	Serum ferritin Latex Particle Immunoturbidimetric	8.00 ng/mL		8.00 ng/mL	10.90 ng/mL	11.90 ng/mL	14.30 ng/mL	15.50 ng/mL		14.80 ng/mL		10.10 ng/mL			14.40 ng/mL	11.90 ng/mL
53	Magnesium	1.87 mg/dl	2.06 mg/dl	1.96 mg/dl	2.34 mg/dl	2.00 mg/dl	2.05 mg/dl		2.39 mg/dl	2.25 mg/dl	2.56 mg/dl	1.35 mg/dl	2.42 mg/dl	2.23 mg/dl	2.33 mg/dl	2.17 mg/dl

	Dipstick(bromethylmol blue)															
64	Glucose Dipstick(Glucose Oxidase peroxidase & K+ iodide)							Absent			Absent				Absent	Absent
65	Pus Cells Microscopy							1 - 2 / HPF			6 - 8 / HPF				1 - 2 / HPF	1 - 2 / HPF
66	RBC'S Microscopy							Not seen			Not seen				Not seen	Not seen
67	Casts Microscopy							Absent			Absent				Absent	Absent
68	Crystals Microscopy							Absent			Absent				Absent	Absent
69	Epithelial Cells Microscopy							0 - 2 / HPF			8 - 10 / HPF				5 - 6 / HPF	5 - 6 / HPF
70	Bacteria Microscopy							Absent			Absent				Absent	Absent
71	Others Microscopy							Absent			Absent				Absent	Absent

ECG FINDINGS

22/5/2024	23/5/52024		24/5/2024		25/5/2024		26/5/2024		27/5/2024		28/5/2024		29/5/2024	
	M	E	M	E	M	E	M	E	M	E	M	E	M	
HR 92/min	100	80	78	94	63	80	63	74	72	75	72	75	71	
QTc 0.39 (second)	0.39	0.40	0.41	0.40	0.51	0.50	0.40	0.38	0.40	0.50	0.42	0.50	0.42	
			J Poi..' elevation in V4-V5	J Point elevation in V4-V5	J point elevatio n V2-V5	pointed T wave V2-V5 ST elevation in 2,3 AvF	J point elevation V3-V6		Pointed T wave V3-V6	Pointed T wave V3-V6	J point elevation V3-V5 ST seg concavity II,III AvF	Point..! T wave V3-V6 J point elevation	pointed T wave V3-V6 J point elevation	

EFFECT OF PROLONGED FASTING ON BLOOD PARAMETERS (HEMATOLOGICAL AND BIOCHEMICAL) IN A CASE OF INDIAN HERMIT- A SEVEN DAYS STUDY

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EFFECT OF PROLONGED FASTING ON BLOOD PARAMETERS (HEMATOLOGICAL AND BIOCHEMICAL) IN A CASE OF INDIAN HERMIT – A SEVEN DAYS STUDY

AIMS AND OBJECTIVES

To study variations in haematological and biochemical parameters on prolonged fasting (seven days) in a case of Indian Hermit

ABSTRACT

An Indian Hermit-Dada Guruji is known for his Narmada Mission for conservation of rivers and the environment. It is said he's on Mahavrat (Prolonged fasting >1300 days) without any food and other calorie source, only controlled water intake (Narmada Jal).

A closed study for **seven days**in the month of May 2024(23-29) was conducted at NSCB Medical College, Jabalpur keeping him on constant surveillance.

His base line blood investigations were done on day of admission-22.05.2024, thereafter his blood was sampled thrice in a day on day one and two lateron twice in day from day three to day seven.

During the study Dada Guruji was on regular physical exertion (Narmada Yatra) almost 30 km walk along the banks of Narmada river at 40-44 degrees temperature, only drinking about one litre Narmada River water.

His blood glucose was monitored intermittently during this walk.

His routine blood counts and biochemical values showed no significant variations during the study.

MATERIALS AND METHODS

Phlebotomy tray – vaccutainers (purple cap, red cap, gray cap and green cap), syringes, sterile gauze pieces, torniquet, sticking plaster

Investigations done CBC, Plasma Glucose, Serum Chemistry- LFT, KFT, TFT, Lipids, Amylase, LDH, Lipase,CPKMB, Electrolytes, Calcium, Phosphorus, Magnesium, Iron,Ferritin, Vit B12, Folate and Vit D

Routine Urine Examination

His drinking water was tested for glucose and electolytes

Some tests were outsourced – Cortisol, Beta hydroxybuterate, adrenaline, trace elements, HBA1CHSCRP, ACHR Ab,

Urine- specific gravity, Ketone bodies, sodium, Potassium

OBSERVTIONS

CBC- There was a steady drop in haemoglobin from 12.3 gm% on day one to 10.9 gm% on day seven. There was an intermittent rise, perhaps due to haemoconcentration. His MCV always remained low 65 fl. Other blood counts were all in range.

Plasma glucose levels remained maintained at an average 70 mg% ranging from 59 to 140 mg% with HBA1C value of 5.4%

Serum amylase remained on higher levels with mild variations towards normal.

Serum Total Bilirubin levels raised from 0.8 to 2 mg%

Serum creatinine and urea levels initially being in range but increased at the end ranging from 0.9 to 1.7 mg% and 16 to 64 mg% respectively

Serum Iron and Ferritin was always on lower levels 50ng and 20ng respectively.

S. Folate, and Vit B12 were at lower side of normal range

Urine was submitted only five times during the study period with ketone being absent each times while specific gravity and electrolytes remining in range.

The drinking water analysis showed nearly absent glucose and electrolytes

A detailed chart of each test and their values according to date and time enclosed

RESULT

The study showed mild variations in some of the observed parameters, however no significant variation was seen. The mental and physical health of Dada Guruji was found to b stable.

DISCUSSION

We have come to know from literature on internet and journals, there has been such studies in past with controlled surveillance which showed significant variations with hours and days of fasting.

- Glucose/Carbohydrates hepatic storesgets depleted within 48 hours thereafter switch to gluconeogenesis from amino acids and glycerol takes place. Here in this particular case the plasma glucose baseline value being 68.69 mg/dl with minimum value of 57.8 and peak value of 131.9 mg/dl. Thus average value being maintained at 70 mg/dl
  Thus to our surprise how's the glucose level maintained, what's the source of energy. According to Dada guruji he's gaining the energy from the nature particularly the Narmada Path what he hypothesise is the main source of energy. While walking on the Narmada Path with full devotion and submission to the Morther Narmada he never gets exhausted. He's able to absorb energy from the breezes flowing over the river, from the mud, stones, flora and fauna and embracing the trees. His glycocylated Hb was also within the range.

- Fats and Lipids after 48 hours ketogenesis commences due to declining levels of insulin, primary inhibitor of lipolysis and increasing levels of noradrenaline a promoter of lipolysis thus increasingketone bodies and free fatty acids as energy source.When the glucose levels are so maintained the ketogenesis is not getting a chance to start it seems. Therefore the serum lipids, betehydroxybuterte were well within normal range.
- Proteins catabolism takes place only over prolonged starvation– more than five days but once starts, nearly 75 gms per day of protein loss can take place that comes mainly from the structural proteins, a process described as autophagy. So also with protean catabolism not starting due maintained glucose levels, thus keeping the serum protein levels within the range.
- Liver enzymes were found to be in the normal range perhaps due to no hepatic challenge.
- Serum amylase values was initially higher, but later on came down to normal range.
- Kidney functions were normal initially but later on serum creatinine and urea was on higher side perhaps due to dehydration, extreme hot weather and poor water intake.
- Minerals and Electrolytes Potassium initially decreases but later on becomes stable at 3 mmol/L . Magnesium, calcium and phosphate remains stable. So also in this case
- Uric Acid levels increases as a product of protein catabolism, however in this particular case uric acid was on higher side, though there was no indications of protein catabolism.
- Vitamins B12 stores 2-5 years other B and C vitamins stay in the body for 48 hrs. Fat soluble vitamins ,D and K stay for nearly 4 weeks. Both Vit B12 and folate were on the expected lower range.
  Other Vit B were ll in the normal range. Vit D levels were maintained owing to sufficient sun exposure.
- Iron stored for nearly 3 years in male and six months in female. Dada guru's serum iron and ferritin levels were both in extremely low levels.
- Serum cortisol (morning and evening) and adrenaline (resting and post exercise) were in normal range.

- Trace Elements remains stable, so as in this study.
- Others – CRP and Acetylcholine receptor antibodies was normal
- Urine routine examination was normal and ketone bodies was absent. Sodium and potassium were in range
- Cellular and Molecular tests were not available.
- Dada Guruji's drinking water was found to be of nearly zero sugar and eletrolytes.

CONCLUSION

The seven day study of prolonged fasting conducted on an Indian Hermit showed nearly normal haematological and biochemicalparameters, the reasons for the above findings could not be scientifically be explained. There are studies that throws light on beneficial effects of fasting by adaptive cellular response that reduces oxidative damage and inflammation, optimize energy metabolism, and improves cellular protection. Studies on rodents have shown fasting improves longevity, protects against diabetes, hypertension, heart diseases, cancers and neurodegeneration. Therefore explanation according to Dada Guruji though hypothetical and has more a spiritual basis, beyond any scientific explanation, we can still relate not only to tremendous will power and determinations, but also an extreme bodily adaptations at cellular and molecular levels – endurance.

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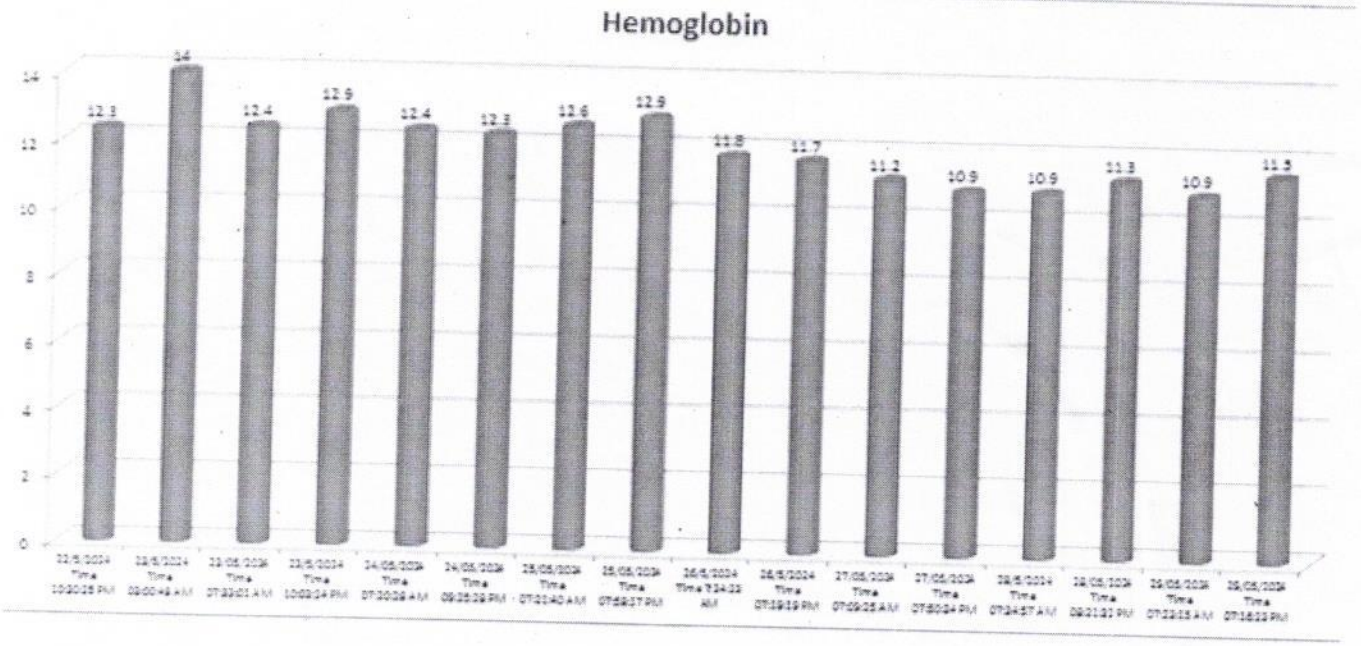
		22/5/2024 Time 10:30:25 PM	23/5/2024 Time 03:00:48 AM	23/05/2024 Time 07:33:01 AM	23/5/2024 Time 10:03:24 PM	24/05/2024 Time 07:20:28 AM	24/05/2024 Time 09:25:28 PM	25/05/2024 Time 07:21:40 AM	25/05/2024 Time 07:58:17 PM	26/5/2024 Time 7:34:23 AM	26/5/2024 Time 07:19:19 PM	27/05/2024 Time 07:09:25 AM	27/05/2024 Time 07:50:34 PM	28/5/2024 Time 07:34:57 AM	28/05/2024 Time 08:21:32 PM	29/05/2024 Time 07:23:15 AM	29/05/2024 Time 07:16:23 PM
1	E.S.R. Westergren's Method		15 mm/1st hr														
	Complete Blood Count (CBC)																
2	Hemoglobin Spectrophotometry (EDTA blood)	12.30 gm/dl	14.00 gm/dl	12.4 gm/dl	12.90 gm/dl	12.40 gm/dl	12.30 gm/dl	12.60 gm/dl	12.90 gm/dl	11.80 gm/dl	11.70 gm/dl	11.20 gm/dl	10.90 gm/dl	10.90 gm/dl	11.30 gm/dl	10.90 gm/dl	11.50 gm/dl
3	RBC Impedence (EDTA whole blood)	5.31 10^6/uL	5.58 10^6/uL	5.39 10^6/uL	5.42 10^6/uL	5.34 10^6/uL	5.18 10^6/uL	5.29 10^6/uL	5.48 10^6/uL	4.98 10^6/uL	4.92 10^6/uL	4.76 10^6/uL	4.75 10^6/uL	4.71 10^6/uL	4.90 10^6/uL	4.59 10^6/uL	4.93 10^6/uL
4	WBC/TLC Impedence (EDTA whole blood)	7.59 10^3/uL	13.68 10^3/uL	8.49 10^3/uL	11.17 10^3/uL	8.07 10^3/uL	9.64 10^3/uL	7.25 10^3/uL	10.18 10^3/uL	7.69 10^3/uL	6.12 10^3/uL	5.11 10^3/uL	7.74 10^3/uL	5.82 10^3/uL	7.42 10^3/uL	5.24 10^3/uL	7.01 10^3/uL
5	Absolute Lymphocyte Count(LYMPH) Automated cell counter	2.00 10^3/uL	2.11 10^3/uL	2.7 10^3/uL	2.09 10^3/uL	2.11 10^3/uL	2.43 10^3/uL	2.36 10^3/uL	3.45 10^3/uL	2.63 10^3/uL	2.30 10^3/uL	1.72 10^3/uL	2.55 10^3/uL	2.32 10^3/uL	2.63 10^3/uL	1.92 10^3/uL	2.38 10^3/uL
6	Absolute Granulocyte Count (GRA) Automated Cell Counte	4.62 10^3/uL	10.08 10^3/uL	4.7 10^3/uL	7.93 10^3/uL	4.97 10^3/uL	5.93 10^3/uL	3.95 10^3/uL	5.57 10^3/uL	4.09 10^3/uL	4.65 10^3/uL	2.67 10^3/uL	4.20 10^3/uL	2.73 10^3/uL	3.96 10^3/uL	2.68 10^3/uL	3.78 10^3/uL
7	Mid% LIS - Automatic Interfacing	12.80%	10.90%	12.80%	10.30%	12.30%	13.30%	13.00%	11.40%	12.60%	14.40%	2.67%	12.80%	13.20%	11.20%	12.20%	12.10%
8	Lym% LIS - Automatic Interfacing	26.40%	15.40%	31.80%	18.70%	26.10%	25.20%	32.60%	33.90%	34.20%	28.30%	14.00%	32.90%	39.80%	35.50%	36.70%	34.00%
9	Gran% LIS - Automatic Interfacing	60.80%	73.70%	55.40%	71.00%	61.60%	61.50%	54.40%	54.70%	53.20%	57.30%	33.70%	54.30%	47.00%	53.30%	51.10%	53.90%
10	Platelet Count Automated Cell Counter	277.00 10^3/uL	366.00 10^3/uL	269.00 10^3/uL	343.00 10^3/uL	278.00 10^3/uL	399.00 10^3/uL	298.00 10^3/uL	366.00 10^3/uL	323.00 10^3/uL	341.00 10^3/uL	52.30 10^3/uL	323.00 10^3/uL	288.00 10^3/uL	343.00 10^3/uL	295.00 10^3/uL	375.00 10^3/uL
11	MCV Measured	67.90 fL	67.40 fL	71.50 fL	67.20 fL	69.30 fL	66.90 fL	66.50 fL	66.80 fL	66.70 fL	66.30 fL	272.00 fL	69.60 fL	66.30 fL	66.40 fL	66.10 fL	66.40 fL
12	MCH Calculated	23.20 Pg	23.8 Pg	23.00 Pg	23.80 Pg	23.30 Pg	23.70 Pg	23.90 Pg	23.50 Pg	23.70 Pg	23.80 Pg	67.00 Pg	23.00 Pg	23.20 Pg	23.10 Pg	23.70 Pg	23.30 Pg
13	MCHC Calculated	34.10 gm/dl	35.40 gm/dl	32.20 gm/dl	35.40 gm/dl	33.60 gm/dl	35.40 gm/dl	35.90 gm/dl	35.10 gm/dl	35.50 gm/dl	35.80 gm/dl	23.50 gm/dl	33.10 gm/dl	35.00 gm/dl	34.80 gm/dl	35.90 gm/dl	35.20 gm/dl
14	RDW-SD Flowcytometry	40.20 fL	40.40 fL	42.40 fL	39.20 fL	40.60 fL	39.00 fL	39.00 fL	38.30 fL	38.10 fL	38.60 fL	35.10 fL	39.90 fL	38.900 fL	39.90 fL	39.00 fL	39.80 fL
15	RDW-CV Flowcytometry	17.70%	17.90%	17.80%	17.40%	17.60%	17.40%	17.60%	17.20%	17.10%	17.60%	17.40%	17.20%	17.60%	18.00%	17.70%	18.00%
16	HCT Calculated	36.00%	39.50%	38.50%	36.40%	37.00%	34.70%	35.20%	36.60%	33.20%	32.60%	31.90%	33.00%	31.20%	32.50%	30.30%	32.70%
17	MPV Automated Cell Counter	9.10 fL	9.2 fL	8.7 fL	8.60 fL	8.90 fL	8.6 fL	8.90 fL	8.90 fL	8.70 fL	8.60 fL	8.50 fL	8.50 fL	8.40 fL	8.90 fL	8.40 fL	8.60 fL
18	PDW Automated Cell Counter	16.00 fL	15.8 fL	16.10 fL	15.90 fL	16.10 fL	15.90 fL	16.10 fL	16.00 fL	16.10 fL	15.90 fL	15.60 fL	15.90 fL	16.20 fL	16.30 fL	16.30 fL	16.10 fL
19	PCT Calculated	0.25%	0.35%	0.23%	0.30%	0.25%	0.29%	0.26%	0.33%	0.28%	0.29%	0.23%	0.28%	0.24%	0.30%	0.25%	0.32%
20	P-LCC Calculated	56.00%	76.00%	47.00%	56.00%	52.00%	54.00%	56.00%	69.00%	54.00%	56.00%	40.00%	49.00%	44.00%	64.00%	47.00%	63.00%
21	P-LCR	20.10%	19.80%	17.70%	16.30%	18.60%	15.90%	18.70%	18.80%	16.80%	16.40%	14.70%	15.10%	15.40%	18.80%	16.00%	16.90%
22	Serum Vitamin B12	138.00 pg/mL	154.00 pg/mL	135 pg/mL	130.00 pg/mL	135.00 pg/mL	141 pg/mL	144.00 pg/mL		154.00 pg/mL	157.00 pg/mL	175.00 pg/mL	150.00 pg/mL	152.00 pg/mL	147.00 pg/mL	152.00 pg/mL	181.00 pg/mL
23	Serum vitamin D Serum, CLIA	41.91 ng/mL		40.58 ng/mL	44.57 ng/mL	45.83 ng/mL	51.99 ng/mL	45.41 ng/mL		46.86 ng/mL	50.63 ng/mL	66.68 ng/mL	48.84 ng/mL	48.93 ng/mL	46.45 ng/mL	44.28 ng/mL	52.25 ng/mL

24	Serum Folate (Folic Acid) CLIA	4.75 ng/mL		5.08 ng/mL	6.79 ng/mL	8.75 ng/mL	6.69 ng/mL	6.21 ng/mL		7.36 ng/mL		7.26 ng/mL	7.28 ng/mL		9.05 ng/mL	7.95 ng/mL	8.59 ng/mL
25	serum Cortisol Serum, CLIA	5.61 ug/dL						16.53 ug/dL		20.22 ug/dL	14.45 ug/dL	18.40 ug/dL		13.60 ug/dL	5.81 ug/dL	14.93 ug/dL	5.55 ug/dL
	Thyroid Profile																
26	FT3 CLIA	3.60 ng/dL		3.43 ng/dL	3.15 ng/dL	3.66 ng/dL	3.22 ng/dL	3.15 ng/dL		3.39 ng/dL	3.62 ng/dL	4.02 ng/dL	2.98 ng/dL	3.22 ng/dL	3.47 ng/dL		3.02 ng/dL
27	FT4 CLIA	0.91 ug/dL		0.93 ug/dL	0.75 ug/dL	0.83 ug/dL	0.89 ug/dL	1.02 ug/dL		1.10 ug/dL	1.17 ug/dL	1.33 ug/dL	1.04 ug/dL	0.95 ug/dL	1.08 ug/dL	1.03 ug/dL	0.97 ug/dL
28	TSH CLIA	2.73 uIU/mL		5.63 uIU/mL	2.80 uIU/mL	3.92 uIU/mL	4.47 uIU/mL	7.26 uIU/mL		6.48 uIU/mL	3.72 uIU/mL	3.93 uIU/mL	2.54 uIU/mL	4.00 uIU/mL	3.80 uIU/mL	3.58 uIU/mL	2.73 uIU/mL
29	Urea Urease-GLDH (Serum)	16.96 mg/dl	33.59 mg/dl	23.43 mg/dl	41.98 mg/dl	44.35 mg/dl	64.16 mg/dl	63.68 mg/dl	65.34 mg/dl	61.46 mg/dl	61.02 mg/dl	64.85 mg/dl	53.44 mg/dl	47.10 mg/dl	41.21 mg/dl	43.02 mg/dl	43.77 mg/dl
30	Creatinine	0.99 mg/dL	1.77 mg/dL	1.07 mg/dL	1.67 mg/dL	1.34 mg/dL	1.47 mg/dL	1.38 mg/dL	1.40 mg/dL	1.31 mg/dL	1.51 mg/dL	1.34 mg/dL	1.36 mg/dL	1.30 mg/dL	1.39 mg/dL	1.28 mg/dL	1.35 mg/dL
31	Uric acid Uricase PAP	4.07 mg/dL		4.97 mg/dL	1.53 mg/dL		7.79 mg/dL	7.76 mg/dL	8.16 mg/dL	7.53 mg/dL	8.16 mg/dL	8.04 mg/dL	7.95 mg/dL	7.78 mg/dL	8.47 mg/dL	8.70 mg/dL	9.21 mg/dL
32	Total Bilirubin DPD	0.85 mg/dL	2.01 mg/dL	1.29 mg/dL	0.22 mg/dL	1.69 mg/dL	1.63 mg/dL	2.13 mg/dL	1.55 mg/dL	1.49 mg/dL	1.90 mg/dL	1.59 mg/dL	1.75 mg/dL	1.52 mg/dL	1.79 mg/dL	1.68 mg/dL	1.48 mg/dL
33	Direct Bilirubin DPD	0.13 mg/dL	0.27 mg/dL	0.17 mg/dL	24.40 U/L	0.27 mg/dL	0.25 mg/dL	0.28 mg/dL	0.15 mg/dL	0.26 mg/dL	0.28 mg/dL	0.24 mg/dL	0.24 mg/dL	0.19 mg/dL	0.22 mg/dL	0.23 mg/dL	0.22 mg/dL
34	SGOT - AST IFCC	19.40 U/L	27.00 U/L	20.20 U/L	13.20 U/L	24.80 U/L	28.90 U/L	29.50 U/L	42.20 U/L	31.00 U/L	33.80 U/L	28.90 U/L	31.00 U/L	26.90 U/L	34.60 U/L	27.50 U/L	30.50 U/L
35	SGPT - ALT IFCC	10.90 U/L	13.20 U/L	11.10 U/L	8.20 gm/dL	12.00 U/L	12.80 U/L	12.50 U/L	15.20 U/L	14.20 U/L	14.40 U/L	12.30 U/L	14.40 U/L	12.20 U/L	14.80 U/L	12.50 U/L	13.40 U/L
36	Total Protein Biuret	7.46 gm/dL	8.43 gm/dL	7.35 gm/dL		7.27 gm/dL	7.56 gm/dL	7.33 gm/dL	8.10 gm/dL	7.17 gm/dL	7.48 gm/dL	6.83 gm/dL	6.78 gm/dL	6.87 gm/dL	7.55 gm/dL	6.60 gm/dL	7.43 gm/dL
37	Albumin Spectrophotometry, BCG	4.17 gm/dL	4.67 gm/dL	4.05 gm/dL	4.49 gm/dL	4.12 gm/dL	4.25 gm/dL	4.20 gm/dL	4.70 gm/dL	4.12 gm/dL	4.44 gm/dL	3.98 gm/dL	4.00 gm/dL	3.86 gm/dL	4.30 gm/dL	3.79 gm/dL	4.23 gm/dL
38	Serum alkaline phosphtase - ALP ANP-AMP (Serum	99.20 U/L	117.5 U/L	100.10 U/L	106.70 U/L	97.70 U/L	97.90 U/L	100.30 U/L	107.80 U/L	97.00 U/L	98.00 U/L	84.40 U/L	88.20 U/L	86.00 U/L	90.90 U/L	91.60 U/L	97.00 U/L
39	Triglyceride (TG) GPO-POD	88.12 mg/dL		146.38 mg/dL	123.30 mg/dL	91.90 mg/dL	129.89 mg/dL	113.35 mg/dL	97.99 mg/dL	92.58 mg/dL	84.06 mg/dL	88.67 mg/dL	96.87 mg/dL	73.02 mg/dL	91.79 mg/dL	75.41 mg/dL	74.70 mg/dL
40	Glucose - Fasting Hexokinase	68.69 mg/dL	70.28 mg/dL		65.81 mg/dL					131.93 mg/dL							
41	Glucose - Random Hexokinase	68.69 mg/dL		73.59 mg/dL	65.81 mg/dL	79.87 mg/dL	100.01 mg/dL	77.41 mg/dL	71.55 mg/dL	131.93 mg/dL	77.62 mg/dL	81.86 mg/dL	78.79 mg/dL	79.45 mg/dL	77.29 mg/dL	70.41 mg/dL	57.83 mg/dL
42	Total Cholesterol CHO-POD	188.51 mg/dL		195.48 mg/dL	202.77 mg/dL	184.60 mg/dL	195.64 mg/dL	201.70 mg/dL	224.69 mg/dL	195.72 mg/dL	200.02 mg/dL	184.00 mg/dL	179.71 mg/dL	174.58 mg/dL	188.75 mg/dL	167.22 mg/dL	179.17 mg/dL
43	HDL - Cholesterol Enzymatic Immunoinhibition	54.05 mg/dL		53.24 mg/dL	56.09 mg/dL	51.37 mg/dL	49.51 mg/dL	51.18 mg/dL	56.68 mg/dL	47.48 mg/dL	51.02 mg/dL	45.63 mg/dL	44.09 mg/dL	42.40 mg/dL	46.67 mg/dL	40.37 mg/dL	45.86 mg/dL
44	LDL - Cholesterol Calculated	117.00 mg/dL		113.00 mg/dL	122.00 mg/dL	115.00 mg/dL	120.00 mg/dL	128.00 mg/dL	148.00 mg/dL	130.00 mg/dL	132.00 mg/dL	121.00 mg/dL	116.00 mg/dL	118.00 mg/dL	124.00 mg/dL	112.00 mg/dL	118.00 mg/dL
45	Serum Calcium Arsenazo III; O-Cresolphthalein complexone; Methylthymol blue	9.01 mg/dL	9.82 mg/dL	8.76 mg/dL	9.91 mg/dL	7.12 mg/dL	9.32 mg/dL	9.21 mg/dL		8.93 mg/dL		2.00 mg/dL	9.08 mg/dL	8.70 mg/dL	9.27 mg/dL	8.73 mg/dL	8.81 mg/dL
46	Serum phosphorus Phosphomolybdate/UV	4.36 mg/dL	3.66 mg/dL	4.20 mg/dL	5.30 mg/dL	4.14 mg/dL	4.34 mg/dL	4.57 mg/dL	4.58 mg/dL	3.76 mg/dL	3.67 mg/dL	3.99 mg/dL	3.85 mg/dL		3.31 mg/dL	3.90 mg/dL	3.50 mg/dL
47	Serum amylase IFCC (EPS)	121.06 U/L	109.86 U/L	107.48 U/L	97.86 U/L	89.93 U/L	79.32 U/L	80.81 U/L		81.80 U/L		82.10 U/L			80.71 U/L	71.98 U/L	74.96 U/L

48	Serum lipase Colorimetric	6.71 U/L	7.37 U/L	5.77 U/L	10.51 U/L					34.50 U/L					18.99 U/L	13.66 U/L	18.95 U/L
49	Serum CPK MB CK IFCC Method Plus Immunoinhibition		26.60 U/L		25.90 U/L	23.50 U/L	25.80 U/L	28.20 U/L				29.80 U/L	23.50 U/L		42.00 U/L	27.90 U/L	31.50 U/L
50	Serum LDH LDH (L-P) IFCC	173.00 U/L	296.40 U/L	141.70 U/L	181.90 U/L		197.10 U/L	189.30 U/L	377.10 U/L	176.00 U/L		173.90 U/L			210.30 U/L	136.70 U/L	195.40 U/L
51	IRON TPTZ	23.45 ug/dL	70.79 ug/dL	40.76 ug/dL	54.60 ug/dL	18.09 ug/dL	71.53 ug/dL	129.70 ug/dL	86.40 ug/dL	53.26 ug/dL	67.12 ug/dL	<1	62.97 ug/dL	26.44 ug/dL	40.43 ug/dL	30.28 ug/dL	17.91 ug/dL
52	Serum ferritin Latex Particle Immunoturbidimetric	8.00 ng/mL		8.00 ng/mL	10.90 ng/mL	11.90 ng/mL	14.30 ng/mL	15.50 ng/mL		14.80 ng/mL		10.10 ng/mL			14.40 ng/mL	11.90 ng/mL	14.50 ng/mL
53	Magnesium Xylidyl Blue, Colourimetric, Tris-buffer	1.87 mg/dl	2.06 mg/dl	1.96 mg/dl	2.34 mg/dl	2.00 mg/dl	2.05 mg/dl		2.39 mg/dl	2.25 mg/dl	2.56 mg/dl	1.35 mg/dl	2.42 mg/dl	2.23 mg/dl	2.33 mg/dl	2.17 mg/dl	
54	Troponin –I Rapid Chromatographic Immunoassay		Negative		Negative		Negative	Negative		Negative		Negative					Negative
	Serum electrolyte (sodium,potassium,chloride)																
55	CHLORIDE ISE Indirect (Serum)	97.90 mmol/L	104.30 mmol/L	99.90 mmol/L	99.80 mmol/L	101.80 mmol/L	96.70 mmol/L	98.90 mmol/L	101.50 mmol/L	96.40 mmol/L	101.60 mmol/L	102.70 mmol/L	102.50 mmol/L	101.90 mmol/L	105.20 mmol/L	103.90 mmol/L	104.70 mmol/L
56	POTASSIUM LIS - Automatic Interfacing	4.05 mmol/L	4.18 mmol/L	3.82 mmol/L	4.48 mmol/L	5.48 mmol/L	4.10 mmol/L	4.15 mmol/L	4.82 mmol/L	3.94 mmol/L	4.84 mmol/L		4.62 mmol/L	4.60 mmol/L	4.90 mmol/L	4.40 mmol/L	5.53 mmol/L
57	SODIUM LIS - Automatic Interfacing	132.30 mmol/L	141.70 mmol/L	134.50 mmol/L	135.80 mmol/L	137.60 mmol/L	132.40 mmol/L	134.80 mmol/L	137.10 mmol/L	131.10 mmol/L	135.90 mmol/L	135.50 mmol/L	133.30 mmol/L	135.60 mmol/L	137.40 mmol/L	136.20 mmol/L	138.80 mmol/L
58	Water Posttasium	0.43 mmol/L			0.39 mmol/L					0.45 mmol/L							
	Urine Routine - pH Specific gravity, sugra, protein																
59	Color Visual Examination							Pale Yellow			Pale Yellow				Pale Yellow	Pale Yellow	Pale Yellow
60	Transparency Visual Examination							Clear			Turbid				Clear	Clear	Clear
61	pH Dipstick(methyl/red/bromethylmol blue)							6			7				8	8	8
62	Protien Dipstick(Tetrabromophenol blue, buffer and non-reactive ingredients)							Absent			Absent				Absent	Absent	Absent
63	Specific Gravity Dipstick(bromethylmol blue)							1.03			1.01				1.01	1.01	1.01
64	Glucose Dipstick(Glucose Oxidase peroxidase & K+ iodide)							Absent			Absent				Absent	Absent	Absent
65	Pus Cells Microscopy							1 - 2 / HPF			6 - 8 / HPF				1 - 2 / HPF	1 - 2 / HPF	1 - 2 / HPF
66	RBC'S Microscopy							Not seen			Not seen				Not seen	Not seen	Not seen
67	Casts Microscopy							Absent			Absent				Absent	Absent	Absent
68	Crystals Microscopy							Absent			Absent				Absent	Absent	Absent
69	Epithelial Cells Microscopy							0 - 2 / HPF			8 - 10 / HPF				5 - 6 / HPF	5 - 6 / HPF	5 - 6 / HPF
70	Bacteria Microscopy							Absent			Absent				Absent	Absent	Absent
71	Others							Absent			Absent				Absent	Absent	Absent


Hemoglobin
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12
10
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6
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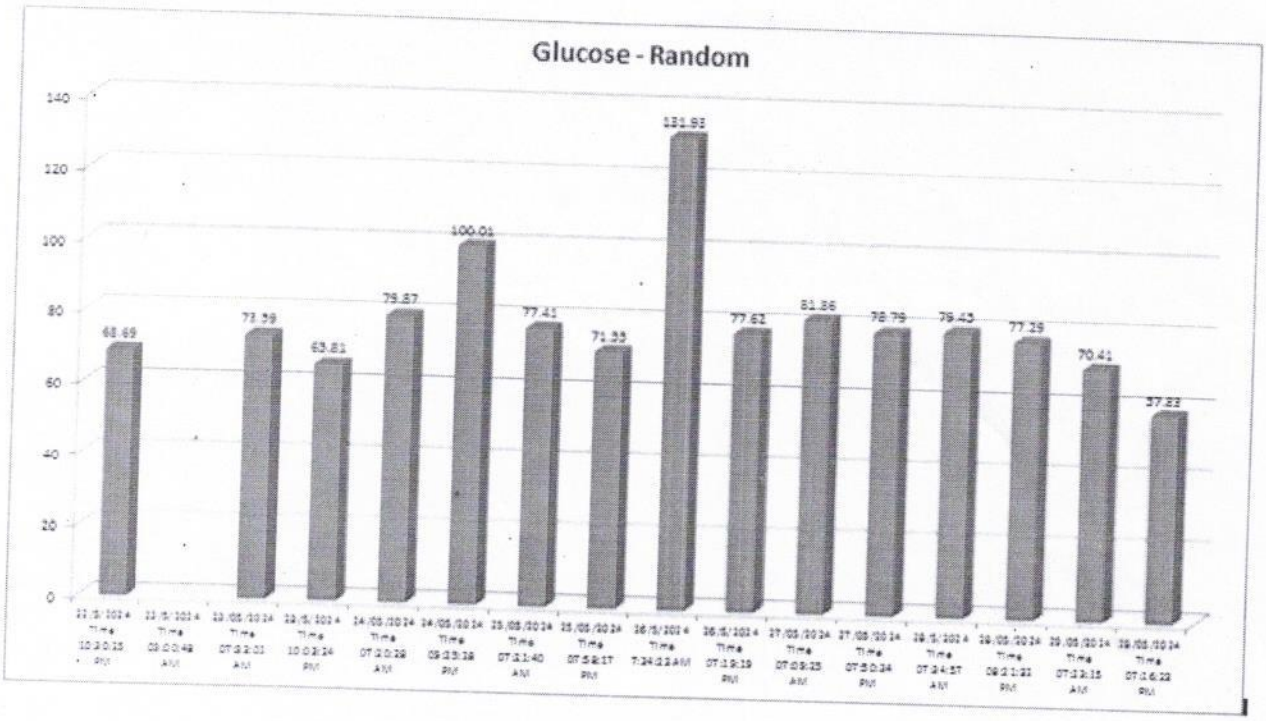
Glucose - Random
140
120
100
80
60
40
20
0
68.69
73.59
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71.33
131.93
77.62
81.86
78.79
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77.29
70.41
57.82

Study: A comprehensive study on various body and mind parameters on human body during prolong fasting and continued exertion.

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Abstract:

As per history given by the subject under study. He has stopped taking food since 17 October 2020 and since then he has been surviving on a small amount of Narmada river water collected from mid stream of Narmada river Jabalpur anddoing Narmada parikrama approximately 30-35 km from 7.30 am to 7.30 pm daily.

In view of prolong and constant fasting and taking only small amount ofNarmada river water, doing narmada parikrama of 30-35km per day since 17th October 2020 and he is physically and mentally very active and maintaining his health. Hencethis research study has been undertaken to see the effects of prolong fasting on various body and mind parameters on human body and to find out the source of energy for survival.

Introduction:

Since Ancient times human and animals have developed the ability to survive without food for prolong period of time. Fasting is practiced throughout the globe for different medical (health benefit , weight loss & certain diseases) and cultural purposes.

During prolong fasting, the body undergoes important physiological changes to keep its function that may induce bothfavourable and harmful effects.

In initial phase of prolong fasting first carbohydrate is utilized then ketone appear in the urine in first week then proteins are burnt , later fat is mobilized from body stores and used.

The metabolic changes does not take in short time fasting because the glycogen, free fatty acid and amino acid store in the tissue is able to supply energy substrate for 24-36 hours depending on the physical exertion. Although Ketone bodies, deposited fat and gluconeogenosisallow most human being to survive 30 or more day in the absence of any food (1). The body homeostasis could be manintained by acclerated fat decomposition, accompanied with reduced resting energy expenditure.

Effects of fasting on human metabolism:

Fasting is defined as the voluntary abstinence or strong limitation of caloric ingestion for a limited period of time.Fasting can be classified into Intermittent fasting (refers to fasting length between 16 to 48 hours alternated with usual food intake.),Periodic fasting (describes cycles of fasting or caloric restricted diet i.e. 5:2 diet (5:2) referring to two days per week , in which food intake is reduced to 600 Kcal.),Long term fasting (more than 7 days) (refer to food abstinence from 2 to 21 days or more during which no or minimal amount of calories upto 200-250 Kcal/ day are given within approximate schedule)

Glucose and fatty acid are the main energy sources for cells .During fasting the body changes its source and type of energy, switching from consumed calories to using its own fat stores in the adipose tissue in the form of triglyceride, during fasting triglycerides are broken down in to fatty acid and glycerin to provide energy.(2)

A medically supervised practice of long term fasting has a long tradition in Europe and in particulars in Germany. The safety of this program has been recently documented in large cohort studies. (3). The type of long term fasting generally lasting from 4 to 21 days has been studied in various clinical condition, chronic inflammatory disorders (4,5), Rheumatoid arthritis(6), HTN(7), insulin resistance ,type 2 diabetes(8),fibromyaligia (9), Breast & ovarian cancer (10) osteoarthritis (11), Obesity (12) and fatty liver (13) .

From 12 to 16 hours after interruption food absorption , glucose levels drop, followed by decrease of Insulin levels at the same time of circulating amino acid levels.

Lipid adiposites are metabolized to free fatty acids whose levels increase in fasting blood to be partly oxialised in most tissue such as muscle, kidney, heart and partly transformed in liver to ketones (Beta hydroxybutyrate acetoacetate and acetone). Ketone serves as an energy source, which are effectively oxidised by the fasting brain, more reluctant than other tissues to renounce glucose and metabolise FFAs. Ketones being metabolized to Acetylcoenzyme- A (Ac COA) enterring the tricarboxylic acid cycle generating ATP. They sustain the function of muscle and brain cells during fasting as well as extended period of physical exertion (14).

Ketone leads to a fully compensated acidosis believed to be responsible for the characteristic absence of hunger during fasting (15). Absence of hunger inhances compliance (3).

A increase in the hormonal secretion of glucagon (stimulation of glycogenolysis and gluconeogesis) (16) growth hormone (implicated in lypolysis (17), cortisol and adrenaline regulate the cause of fasting (18). The decrement in the adipokine leptine and rise in adiponectine (19), fasting significantly reduces insulin like growth factor (IGf-1) leading to reduction in anabolic processes and decrement in the ATP/AMP ratio.(20)

In a prospective study showed that fasting more than 16 days resulted in reducing the baseline and exercise induced serum noepinephrine, epinephrine and glucogon concentration (21) and associated with increase in the concentration of growth hormone glucagon and a decrease in thyrotropin and blood T3, T4 levels (22).

Serotonin release and turnover can increase during prolong fasting (23), which may cause elevated mood and reduced pain sensitivity (24).

Five days of fasting caused an over 60% decrease of IGF-1 but chronic caloric restriction does not lead to decline in IGF-1 (26). Although Ketone bodies, deposited fat and gluconeogenesis allow most human being to survive 30 or more days in the absence of any food.

Global scenario:

Ray maor a Israeli practitioner of inedia appeared to survive without food or water for 8days and nights,he was restricted in small villa under video surveillance.he was in good spirits throughout the experiment.(oct.2013)

In a handful of documented cases,individuals attempting breatharian fasting have died.Scientific societies such as British dietetic association stonglydisadvice the breatharian diet.

Indian scenario:

0ne study conducted on an 82 years old male subject who claims to have been in the state of inedia (fasting) (is the ability of a person to live without consuming food and water for prolong duration) for the past 70 years, subject weight 35 kg and was 158 cm in height and found that subject has significantly low pineal and pituitary volume, which falls under the category of normal young child and they hypothetised that human can sustain in the inedial state for longer duration if the pineal and pituitary volumes are low (M.S. Raghu prasad et al 2018.)(27)

Study conducted on Shri Hira Ratan Manek in Ahemedabad Gujrat, who has done continuous fasting for 411days in 2000 and 211days in 1995-96, and surviving only on boiled water during daytime and just no other food or liquids, which was extremely difficult to explain, authours have given 4 hypothesis for this happening.(index journal Gujrat medical journal ,march 2001)

Local scenario: No such study is available.

Aims and Objective of Study:

1. To study the various body and mind parameters during prolong fasting.
2. To assess various biochemical parameters during this period.
3. To assess for development of any disease process during this period.
4. To hypothetize for explaining the results.

Methodology:Study area and period: This study was conducted inobservation room No.5, under the department of Medicine, NSCB Medical College Jabalpur, M.P. from 22-29th May 2024.

Sampling design: an observational study.

Method:

A 45years old male Subject, presently living in Jabalpur was voluntarily admitted for observation and gave full consent for monitoring his clinical, biochemical and radiological parameters. During this study period, he was under constant companionship and CCTV and video recording. His subjective and objective clinical, biochemical, radiological parameters were checked in his indoor and outdoor by a team of doctors and residents daily.

At the time of admission he has no presenting complaints, no past history of any major medical/ surgical illness or covid19,recieved vaccination for covid19.He has been doing all his routine activities and narmada parikrama daily without any discomfort since 17th October 2020..On examination-conscious,co- operative,welloriented,afebrile,Pulse-86/min, regular, normal volume,synchronous ,no radio radial or radio femoral delay,condition of arterial wall-normal.BP:133/91 mm of Hg, respiratory rate:16per min. SpO2:100% on room air ,height:172cm,weight:61.03kg, BMI 20.75mid upper arm circumference-29.5cm,neckcircumference:41cm,waistcircumference:81.5cm,hip circumference:92cm, waist to hip ratio:0.88, BMR:1475.93,skin and tounge:dry.On systemic examination: Neurological and mental status was normal,no other positive finding observed in other systemic and general examination.

The daily routine of subject during study period was, he woke up at 6.00 to 6.30 am, takes bath& take 1-2 glasses of cold Narmada river water (which waskept in stailess steel Thermos bottle) from the hands of

doctors,does Puja archnaof tree and then proceed for Narmada parikrama at 7.30 am daily.

He goes near narmada river by Ambulance, accompanied by doctors, Police Staff (Raghuvir Singh Sarote (755471244), 1-2 follower and video recording staff. He starts his walk on the uneven surface of bay of narmada river near Gwarighat at 8.00 am covering mangelighat, seonighat, barbatighat, trishul, bhedghat and bhedaghatthen crosses the river by boatreaches Gopalpur, paramhans ashram and complete narmada parikrama of 30-35 km/ day in this peak of summer season where atmospheric maximum temps was 41-45^{O}C. He used to talk and run in between also and performdhyansadhna at same places and then return back to hospital at 7.30-8.00 pm.

After reaching hospital his subjective and objective assessment done, blood sample andandhis drinking water of narmada river were collected forbiochemical analysis daily. Then he takes 1-2 glass of coldnarmada river waterin silver glass from the hands of doctors, passes urine 15-20 ml once in night only.Then he takes bath and feels more energetic and shares his thought that he gets energy from nature, trees, sand and Narmada river with his followers and media person and goes for sleep at around1:00 to 1:30am .

During hospital stay his subjective and objective clinical general and systemic examination done dailyincluding- Temperature, pulse, blood pressure, respiratory rate, SPO_2, hydration status, intake/output, hairs, eyes, perioral and oral cavity, bones, joints, neurological status, height, weight, BMI, mid upper arm circumference, waist to hip ratio, BMR . Psychiatric assessment was done, Blood samples were collected for all routine and other testing including routine biochemistryCBC,ESR, sugar, LFT, RFT,

Lipid profile, thyroid profile, ABG, nutritional parameters (Iron, folic acid, vitamin B-1,B2,B6, B12,Vitamin D), minerals and trace elements,serum adrenaline (in resting and after exertion) andserum cortisol.

Urine- routine& microscopic examination,specific gravity, urinary sodium,Ketone and catecholamine.

His drinking water of narmadariver for sugar and minerals were also done.Throad swab examination,

He denied to undergo for endoscopic examination of upper & lower gastrointestinal tract.

ECG, ECHO, EEG, X-ray pelvis and cervical spine, USG abdomen, CT scanThorax and abdomen and MRI Brain without contrast.

During this period he has not taken any food/fruits, which was authenticated by accompanying police guard and doctors ,his daily fluid intake was 4-5 glass of narmada water (600-800 ml) per day. He did not pass motion during this period and his total urine output was very low15-20 ml once in night time only.

Result:

Clinical: His clinical parameters during indoor and outdoor while doingnarmada parikramawere ,Temperature remained in between 95.7-98.6^{O}f even when maximum atmospheric temperature was 41-44 degree Celsius, resting pulse rate in morning before going for narmada parikrama was in the range of 63-100 /min, increases during narmada parikrama72-116/min and comes to normal range after coming back in evening to 74-94/min,it was regular&normal volumic, skin &tongue-dry, no perspiration even in day time while doing narmada parikrama,skin turgor-normal , capillary refilling time < 3 sec., no symptoms suggestive of dehydration(dizzinessorlight

headedness,headache,tiredness,irritability,drowsiness or confusion), BP 107/67-149/77 mmHg ,systolic BP during resting state was in the range of 102-126mm of Hg it increased during exertion to 104-149 mm of Hg, the diastolic BP in resting state was 67-91 mm of Hg it also increased on exertion to 66-96 mm of Hg., Respiratory rate 16-18 breath/min, SPO_2 96-100% on room air, height:172 cm, weight: 59.50-61.40 kg, his body weight was slightly lower in evening 59.85-61.03kg as compared to morning time before going to narmada parikrama 59.50-61.40, BMI 20.75 it was in the healthy weight range, mid upper arm circumference 29.5mm,his neck circumference was 41cm.it was more than normal (less than 37.0cm in men), waist to hip ratio 0.88 was normal, BMR 1509, no other positive finding in general examination. Water intake was 600-800ml and urine output was very low 15-20ml per day.

Systemic examination: Respiratory, CVS, per abdomen and nervous system, mental status does not reveal any positive finding,No negative emotion (depression, anxiety, anger, irritability,fatique and tension).No cognitive and behavioral deficit , amnesia, confusion and impaired co-ordination.

Investigation: Biochemical & Radiological

Hb:10.90-12.60gm%, TLC 5.24-11.17/3mm, Hct30-39, MCV-66.10-71.50, MCH 23.00-23.80,MCHC:23-35, RDW-Cv 17.10-18.00, TRBC-4.45-5.58, Platelet- 277-399, Polymorph:33-73, Lymphocyte:14-39, Monocyte10, ESR 15mm.The Hb,MCV,MCH were found to be low due to iron deficiency. RDW-CV was slightly high, P.S. for comment: normocytic normochromic.

Renal parameters: blood Urea:16-65mg%, S.Creatinine:0.99-1.77, Sodium: 134, Potasium 5.3,Chloride-102, Calcium:7.12-9.91, phosphorus:3.31-

5.30,Uric acid 7.95-8.0. The urea, creatinine and uric acid levels were slightly high probably due to muscleprotein breakdown for caloric requirement. e-GFR was low and variable:45-77ml/min.

LFT-Serum bilirubin- Total:0.85-2.01 direct:0.13-0.28, indirect:1.33-.1.51 SGOT-19.40-42.20, SGPT:8.20-15.20, Serum protein :6.60-8.43, albumin :3.79-4.70, SAP:84-117 .Unconjugatedbilirubenemia and slight variability was noted in other parameters.

Pancreatic enzymes:Lipase:5.77-34 and Amylase:71.98-121.06 levels were in the range.

Cardiac enzymes: CPK MB:23.50-29.80, LDH:136.70-296.40, Trop I: Negative.

Lipid profile: Serum cholesterol:167-184,Triglyceride:73.03-113& HDL:40-56 were in normal range, LDL:112-130 was slightly raised.

Hormonal profile: no significant change in levels of FT3:2.98-4.02,FT_4:0.75-1.17, TSH- 2.54-7.26, cortisol:5.61-20 (6.6-22.6 µg/dl).Serum adrenaline in resting state:34.7 and after exertion: 57.8 (< 125)

Blood sugar: fasting 68-131mg% ,HbA1c:5.4%

Vitamin:B1:89mcg/l,B2:192mcg/l,B6:42.60mcg/ml,Vit.D:40-51.99&Vit.B12(cyanocobalamine):130-175 were in normal range,Folic acid:4.75-9.05 was slightly raised.

Iron profile :iron:26-86, % saturation:11, TIBC:412, ferritin:8.00-15.50suggestive of iron deficiency..

Trace elements ,minerals & toxic elements- Arsenic, Cadmium, mercury, lead, chromium, barium, cobalt, caesium, thalium, uranium, strontium, antimony, Tin, molybdenum, Bismuth, selenium, aluminium, nickel, magnese were in the normal range.S.copper-108 µg/dl , Zinc-85.5

µg/dl,Magnesium:1.35-2.34 levels were also innormal range.Berylium 0.03 µg/mlm&Iodine 34.9 (40-92)levels were slightly low.

ABG Ph 7.39, PCO_2 34.4, PaO_2- 119.3, HCO_3 21.3, BE 4.5 SO_2 98.2%, Anion gap 12.1(upper limit of normal range) Chloride 108 ,lactate3.03mmol/l (hyperlactatemia)suggestive of compensated metabolic acidosis..

Urine:Protein &sugar: absent, sp.gr.:1.030 was in the upper limit of normal as subject has less water intake in this summer season, Ketone-nil, urinary Sodium 22.8 mg/L, PH 6.0, Pus cells 1-2, RBC nil, no cast /crystal,

Narmada river water: sugar:nil ,electrolyte: nil.

Serum betahydroxy butyrate:1.42 &HsCRP:0.74mg/l were normal.

Throat swab for culture: normal commensal oral flora,no growth after 48hours.

ECHO- LA 2.5, AO 2.6 LVED d/s 4.1/2.9, PWD 1.2, IVS D 1.3, RA 1, RV 1.3, Chamber size normal, valve normal, no MR/TR, no RWMA, EF 62% ,PAsP&PA-N, IVC 17 mm withgood inspiratory collapse.

USG abdomen: no significant abnormality, Colour Doppler both lower limbs (Arterial + venous)- no significant abnormality,

Holter monitoring- no clinically significant arrhythmia, heart rate:75-150/min

CT scan thorax, abdomen &Pelvis(without contrast)- Few small tiny calcified, mediastinal lymph nodes seen in subcarinal region, rest are unremarkable

MRI Brain (without contrast) no significant abnormality found in pineal and pituitary gland, hypothalamus,insula,temporal cortex and other areas.

EEG: normal, no delta waves found.

ECG FINDINGS

22/5/2024	23/5/2024		24/5/2024		25/5/2024		26/5/2024		27/5/2024		28/5/2024		29/5/2024	
	M	E	M	E	M	E	M	E	M	E	M	E	M	
HR 92/min	100	80	78	94	63	80	63	74	72	75	72	75	71	
QTc 0.39 (second)	0.39	0.40	0.41	0.40	0.51	0.50	0.40	0.38	0.40	0.50	0.42	0.50	0.42	
			J Point elevation in V4-V5	J Point elevation in V4-V5	J point elevation V2-V5	pointed T wave V2-V5 ST elevation in 2,3 AvF	J point elevation V3-V6		Pointed T wave V3-V6	Pointed T wave V3-V6	J point elevation V3-V5 ST seg concavity II,III AvF	Pointed T wave V3-V6 J point elevation	pointed T wave V3-V6 J point elevation	

ECG:resting heart rate 63-100/minute, QTc interval 0.38-0.51seconds it was found to be high five times and returned to normal spontaneously,

J-point elevation with peaked T waves in mid precordial leads suggestive of early repolarization syndrome.

X-ray pelvis including hip joint and cervical spine were normal.

Discussion:

Increasing data from human and animal experiments demonstrated caloric restriction and fasting were associated with deceleration and prevention of most chronic metabolic illnesses.(1)

Because of the habbits, physiology and mentality, long term fasting for more than 36 hours does not come easy for most people. Literatures are available related to prolong fasting in resting state but no such data is available in subjects doing exercise daily,like in this case thesubject is walking 30-35km/day in this summer season at max.atmospherictemp.of 41-45degree celcius.

Toledo et al (28) reported that Buchinger periodic fasting lasting from 4 to 21 days was safe and well tolerated, as did some other prolonged fasting human experiments for 5 days to 2 weeks to prevent obesity hypertension (29), DM, Insulin resistance (30) and arthiritis (4).

Blood glucose stabilized at the lower natural level and remain stable during the whole fasting period as long as fat reserves can fuel metabolism and protein pool remains at the physiological limit (14).

No abnormality was found in water soluble vitamins which indicates vitamins were released from stored tissues to maintain vitamin nutrition of blood and other tissues.

Other parameters were maintained within the reference values.

B.P. response in prolong fasting : systolic BP did not decrease in short fasting but occurred in prolonged fasting (7-30 days)(34) it slightly decreases and return to normal.

Fasting could also prolong QTc interval(33) however there were no change in the CPK -MB, LDH, AST level.

Lypolysis plays a important role as an energy source and is precisely regulated to survive longer during food deprivation. Liver function were not affected.

All most majority of blood routine indexes do not show marked changes except increased tendency of urea and serum creatinine, uric acid which could be due to limited muscle proteins breakdown and catabolism and gluconeogenesis ,this observation is consistent with previous reports (35,32).

Conclusion:

During this study period no obvious abnormality found in general and systemic examination except for mild anaemia ,mild dehydration in the form of dryness of skin & tongue, no perspiration and a very low urine output but no symptoms of dehydration.

Inspite of fasting no significant abnormality were noted in biochemical parameters except iron deficiency anemia,,slightly elevated QTc interval,LDL, Lactate level in ABG, renal parameters with low e-GFR, mild unconjugated bilirubenemia,lower level of blood sugar and Iodine and slight variability in other parameters. No clinical evidence of ketosis, this may be due to extreme form of adaptation to chronic starvation and water restriction.

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Monitoring Chart

Name: Shri Dadaguru	Age: 45 years	Sex: Male	Date 22/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00AM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temp. °F														Afebrile			Afebrile		Afebrile					
Pulse(/min)														88			90		92					
BP (mm of Hg)														133/91			130/90		102/69					
RR/ min														16			15		14					
SPO2 (%)														99			99		99					
Intake														Nil			Nil		Nil					
Urine output														Nil			Nil		15 ml					
Bowel Habit														Nil			Nil		Nil					
Sleep																				1.3 in Sleeping hours				6.20 PM
Hydration														Nil			Nil		-					-
Tongue														Dry			Dry		Dry					Normal
Skin turger														Normal			Normal		Normal					
CRT														Normal			Normal		Normal					
Blood Sugar (Glucometer)																								61mg/dl
Urine Ketone																			Neg					
Weight (kg)														61.03kg										61.40 kg

Name of RMO		
	8.00AM to 4.00PM	
	4.00PM to 12.00AM	Dr. Aadil Khan
	12.00AM to 8.00AM	Dr. Sandeep Tiwari

Monitoring Chart

Name: Shri Dadaguru	Age: 45 years	Sex: Male	Date 23/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00PM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature	Afeb.						Afeb.				Afeb.		Afeb		Afeb			Afeb						
Pulse	80						83				103		89		100			95						
Blood pressure	112/72						149/77				128/81		118/80		126/80			123/81						
Resp. Rate	16						18				16		16		16			16						
SPO2	98%						96%				96%		97%		99%			99%						
Intake	100 ml water						Nil				Nil		Nil		100 ml water			Nil						
Urine output	Nil						Nil				Nil		Nil		Nil			Nil						
Bowel Habit	not passed						not passed				not passed		not passed		not passed			not passed						
Sleep							-				-		-		-			-	1-10 Sleeping hours					6.10AM
Hydration							-				-		-		-									
Tongue	Dry						Dry				Dry		Dry		Dry			Dry						
Skin turger	Normal						N				N		N		N			N						
CRT	N.						N				N		N		N			N						
Blood Sugar	61						78				120		83		53									
Urine Ketone																								
Weight	61.4														60.1									

Name of RMO				
	8.00AM to 4.00PM	Dr. Mahendra Mujaldar		
	4:00PM to 12.00AM	Dr. Adil Khan		
	12:00AM to 8.00AM	Dr. Sandeep Tiwari		

Total disttance walked 30 km at 43 °C

Monitoring Chart

Name: Shri Dada Guru	Age: 45 years	Sex: Male	Date 24/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00AM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature	Afeb			Afeb.					Afeb			Afeb		Afeb		Afeb									
Pulse	90min			90/m					88/m			96/m		95/m											
Blood pressure	109/71			134/66					131/88			132/96		123/84											
Resp. Rate	16			15/min					14/min			14/min		16/min											
SPO2	100%			96%					96%			97%		98%											
Intake	200ml water			-					-			-		-		170ml water									
Urine output	20ml			-					-			-		-		20 ml									
Bowel Habit	-			-					-			-		-											
Sleep	-			-														12:40AM	Sleeping						06:10AM
Hydration																									-
Tongue	Dry			Dry					Dry			Dry		Dry		Dry									Dry
Skin turger	N			N					N			N		N		N									N
CRT	N			N					N			N		N		N									N
Blood Sugar (glaucometer)	66mg/dl			66mg/dl					97mg/dl			70mg/dl		117mg/dl											94mg/dl
Urine Ketone	Neg.															Neg.									-
Weight	59.5													60.15											60.150

Name of RMO				
	8.00AM to 4.00PM:	Dr. Nikhil Giri		
	4:00PM to 12.00AM			
	12:00AM to 8.00AM	Dr. Sandeep Tiwari		

Total distance walk 33 km at 43 °C

Monitoring Chart

Name: Shri Dada Guru	Age: 45 years	Sex: Male	Date 25/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00PM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature	98°F				98				98.7				98.5		98.6			95.7						Afeb
Pulse	67/m				116				91				101		97			86						76
Blood pressure	106/70				136/86				127/78				134/86		115/72			114/74						101/67
Resp. Rate	16				18				16				16		16			16						16
SPO2	100%				98%				98%				98%		100%			98%						100%
Intake	200ml+ 200ml				Nil				Nil				Nil		3 glass water			2 glass water						2glass of water
Urine output	Nil				Nil				Nil				Nil		Nil			Nil						20ml
Bowel Habit	-				-				-				-		-									not passed
Sleep	-														-			1.00AM sleeping						6:20AM
Hydration																								-
Tongue	Dry				Dry				Dry				Dry		Dry			Dry						Dry
Skin turger	N				N				N				N		N			N						not passed
CRT	N				N				N				N		N			N						N
Blood Sugar (glaucometer)	91				91				62				62		124									124
Urine Ketone	-														-									Neg.
Weight	60.15														60.6									60.15kg.

Name of RMO	8.00AM to 4.00PM	Dr. Virendra Singhuare		
	4.00PM to 12.00AM			
	12.00AM to 8.00AM	Dr. Sandeep Tiwari		

Total distance walked 40 km at 44 °C

Monitoring Chart

Name: Shri Dada Guru	Age: 45 years	Sex: Male	Date 26/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00AM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature	95.8			96.6						96.2			96	Afeb.		Afeb								96
Pulse	76			97						98			98	98		98								70
Blood pressure	101/67			120/80						114/90			110/70	125/70		125/70								108/72
Resp. Rate	16			15						14			14	14		14								15
SPO2	100%			97%						98%			99%	98%		98%								99%
Intake	1 glass water													1 glass water	300ml water	1 glass water								2-1/2 glass water
Urine output	Nil			Nil						Nil			Nil	Nil	Nil	Nil			Sleeping					Nil
Bowel Habit	not passed			not passed						not passed			not passed	not passed	not passed	not passed								not passed
Sleep	-			-						-			-	-				1.00AM to 6:30 AM (5 1/2 hours)						
Hydration																								
Tongue	Dry			Dry						Dry			Dry	Dry	Dry	Dry								Dry
Skin turger	N			N						N			N	N	N	N								N
CRT	N			N						N			N	N	N	N								N
Blood Sugar (glaucometer)	124			119						112														137
Urine Ketone	-			-						-			-	-	-	-								-
Weight	60.15			60.15						60.15			60.15	59.8	-	-								6015

Name of RMO	8.00AM to 4.00PM	Dr. Sai Baba		
	4.00PM to 12.00AM			
	12:00AM to 8.00AM	Dr. Adil Khan		

Total distance: walked 33 km 43 °C

Monitoring Chart

Name: Shri Dada Guru	Age: 45 years	Sex: Male	Date 27/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	06:40PM	08:30PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature				35.5°C	35.5°C				35.4		37.2		36.5	36.3				35.9						35.4
Pulse				77	86				90		104		103	80				78						80
Blood pressure				110/78	104/70				104/70		116/70		130/90	126/71				110/69						106/71
Resp. Rate				20	18				18		18		14	16				14						15
SPO2				98%	97%				98%		98%		98%	99%				99%						99%
Intake				Nil	Nil				Nil		Nil		Nil	3 glass water				1 glass H2O						3glass water
Urine output				Nil	Nil				Nil		Nil		Nil	Nil				Nil						20 ml
Bowel Habit				Nil	Nil				Nil		Nil		Nil	Nil				Nil						not passed
Sleep				-	-				-		-		-	-				-	Sleeping 1:40 AM to 6:30 AM					
Hydration																								
Tongue				Dry	Dry				Dry		Dry		Dry	Dry				Nil						N
Skin turger				N	N				N		N		N	N				Nil						N
CRT				N	N				N		N		N	N				Nil						N
Blood Sugar (glaucometer)				102	75				112		165		131					-						115
Urine Ketone																								Neg.
Weight														-				-						60.75

Name of RMO				
	8.00AM to 4.00PM	Dr. Deepak Vadhwani		
	4.00PM to 12.00AM			
	12:00AM to 8.00AM	Dr. Shyam Bhagat		

Total distance walked 30 km 44°C.

Monitoring Chart

Name: Shri Dada Guru	Age: 45 years	Sex: Male	Date 28/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:00PM	07:00PM	08:00PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temp. °C	35.7				36			38.6		36.3		36.3		35.7				35.6						35.3OC
Pulse	80/min				82/min			86/m		72/m		72/m		90/min				65						80
Blood pressure	106/70				100/70			106/70		110/70		110/70		107/69				102/68						109/72
Resp. Rate	18				16			16		18		18		14				14						15
SPO2	99%RA				98%RA			99%		99%		99%		98%				98%						99%
Intake	2 glass of water				Nil			Nil		Nil		Nil		2 glass water				1 glass water						2glass water
Urine output	Nil				Nil			Nil		Nil		Nil		Nil				Nil						15 ml
Bowel Habit	not passed				not passed			not passed		not passed		not passed		not passed				not passed						not passed
Sleep	-				-			-		-		-		-				-	Sleeping 1:30 AM to 6:30 AM (5 hours)					
Hydration																								
Tongue	Dry				Dry			Dry		Dry		Dry		Dry				Dry						Dry
Skin turger	N				N			N		N		N		N				N						N
CRT	N				N			N		N		N		M				N						N
Blood Sugar (glaucometer)	115				118			151		96		96		97				-						98
Urine Ketone	-				-			-		-		-		-				-						Neg.
Weight	60.75				-			-		-		-		59.85				-						59.5

Name of RMO				
	8.00AM to 4.00PM	Dr. Vaibhav Mandloi		
	4:00PM to 12.00AM	Dr. Mahesh Patil		
	12:00AM to 8.00AM	Dr. Aadil Khan		

Total distance walked 31 km 45° C Temp.

Monitoring Chart

Name: Shri Dada Guru	Age: 45 years	Sex: Male	Date 29/5/2024

	07:00AM	08:00AM	09:00AM	10:00AM	11:00AM	12:00PM	01:00PM	02:00PM	03:00PM	04:00PM	05:00PM	06:30PM	07:00PM	08:30PM	09:00PM	10:00PM	11:00PM	12:00AM	01:00AM	02:00AM	03:00AM	04:00AM	05:00AM	06:00AM
Temperature	35.6				35			35-7	36.5			35		35.7				35.6						35.3OC
Pulse	82				86			86	75			92		85				65						80
Blood pressure	109/72				120/80			120/80	106/70			110/70		109/73				102/68						109/72
Resp. Rate	15				16			15	15			16		15				14						15
SPO2	99%				98%			98%	97%RA			98%RA		98%RA				98%						99%
Intake	-				Nil			Nil	Nil			Nil		3 glass water				1 glass H2O						2glass of water
Urine output	Nil				Nil			Nil	Nil			Nil		Nil				Nil						Yes
Bowel Habit	not passed				not passed			not passed	not passed			not passed		not passed				not passed						not passed
Sleep	-				-			-	-			-		-				-	leeping 1:30 AM to 6:30 AM (5 hours)					
Hydration	N				N			N	N			N		N				N						N
Tongue	Dry				Dry			Dry	Dry			Dry		Dry				Dry						Dry
Skin turger	N				N			N	N			N		N				N						N
CRT	N				N			N	N			N		M				N						N
Blood Sugar (glaucometer)	98				99			90	109mg/dl			90mg/dl		58.1				-						98
Urine Ketone	-				-			-	-			-		-				-						-
Weight	60.75				-			-	-			-		59.85				-						59.5

Name of RMO	8:00AM to 4:00PM	Dr. Amit Yadav	Nursing Staff	
	4:00PM to 12:00AM	Dr. Mahesh Patil		
	12:00AM to 8:00AM	Dr. Aadil Khan		

		22/5/2024 Time 10:30:25 PM	23/5/2024 Time 03:00:48 AM	23/05/2024 Time 07:33:01 AM	23/5/2024 Time 10:03:24 PM	24/05/2024 Time 07:20:28 AM	24/05/2024 Time 09:25:28 PM	25/05/2024 Time 07:21:40 AM	25/05/2024 Time 07:58:17 PM	26/5/2024 Time 7:34:23 AM	26/5/2024 Time 07:19:19 PM	27/05/2024 Time 07:09:25 AM	27/05/2024 Time 07:50:34 PM	28/5/2024 Time 07:34:57 AM	28/05/2024 Time 08:21:32 PM	29/05/2024 Time 07:23:15 AM
1	E.S.R. Westergren's Method		15 mm/1st hr													
	Complete Blood Count (CBC)															
2	Hemoglobin Spectrophotometry (EDTA blood)	12.30 gm/dl	14.00 gm/dl	12.4 gm/dl	12.90 gm/dl	12.40 gm/dl	12.30 gm/dl	12.60 gm/dl	12.90 gm/dl	11.80 gm/dl	11.70 gm/dl	11.20 gm/dl	10.90 gm/dl	10.90 gm/dl	11.30 gm/dl	10.90 gm/dl
3	RBC Impedence (EDTA whole blood)	5.31 10^6/uL	5.58 10^6/uL	5.39 10^6/uL	5.42 10^6/uL	5.34 10^6/uL	5.18 10^6/uL	5.29 10^6/uL	5.48 10^6/uL	4.98 10^6/uL	4.92 10^6/uL	4.76 10^6/uL	4.75 10^6/uL	4.71 10^6/uL	4.90 10^6/uL	4.59 10^6/uL
4	WBC/TLC Impedence (EDTA whole blood)	7.59 10^3/uL	13.68 10^3/uL	8.49 10^3/uL	11.17 10^3/uL	8.07 10^3/uL	9.64 10^3/uL	7.25 10^3/uL	10.18 10^3/uL	7.69 10^3/uL	8.12 10^3/uL	5.11 10^3/uL	7.74 10^3/uL	5.82 10^3/uL	7.42 10^3/uL	5.24 10^3/uL
5	Absolute Lymphocyte Count(LYMPH) Automated cell counter	2.00 10^3/uL	2.11 10^3/uL	2.7 10^3/uL	2.09 10^3/uL	2.11 10^3/uL	2.43 10^3/uL	2.36 10^3/uL	3.45 10^3/uL	2.63 10^3/uL	2.30 10^3/uL	1.72 10^3/uL	2.55 10^3/uL	2.32 10^3/uL	2.63 10^3/uL	1.92 10^3/uL
6	Absolute Granulocyte Count (GRA) Automated Cell Counte	4.62 10^3/uL	10.08 10^3/uL	4.7 10^3/uL	7.93 10^3/uL	4.97 10^3/uL	5.93 10^3/uL	3.95 10^3/uL	5.57 10^3/uL	4.09 10^3/uL	4.65 10^3/uL	2.67 10^3/uL	4.20 10^3/uL	2.73 10^3/uL	3.96 10^3/uL	2.68 10^3/uL
7	Mid% LIS - Automatic Interfacing	12.80%	10.90%	12.80%	10.30%	12.30%	13.30%	13.00%	11.40%	12.60%	14.40%	2.67%	12.80%	13.20%	11.20%	12.20%
8	Lym% LIS - Automatic Interfacing	26.40%	15.40%	31.80%	18.70%	26.10%	25.20%	32.60%	33.90%	34.20%	28.30%	14.00%	32.90%	39.80%	35.50%	36.70%
9	Gran% LIS - Automatic Interfacing	60.80%	73.70%	55.40%	71.00%	61.60%	61.50%	54.40%	54.70%	53.20%	57.30%	33.70%	54.30%	47.00%	53.30%	51.10%
10	Platelet Count	277.00 10^3/uL	366.00 10^3/uL	269.00 10^3/uL	343.00 10^3/uL	278.00 10^3/uL	399.00 10^3/uL	298.00 10^3/uL	366.00 10^3/uL	323.00 10^3/uL	341.00 10^3/uL	52.30 10^3/uL	323.00 10^3/uL	288.00 10^3/uL	343.00 10^3/uL	295.00 10^3/uL

	Automated Cell Counter															
11	MCV Measured	67.90 fL	67.40 fL	71.50 fL	67.20 fL	69.30 fL	66.90 fL	66.50 fL	66.80 fL	66.70 fL	66.30 fL	272.00 fL	69.60 fL	66.30 fL	66.40 fL	66.10 fL
12	MCH Calculated	23.20 Pg.	23.8 Pg.	23.00 Pg.	23.80 Pg.	23.30 Pg.	23.70 Pg.	23.90 Pg.	23.50 Pg.	23.70 Pg.	23.80 Pg.	67.00 Pg.	23.00 Pg.	23.20 Pg.	23.10 Pg.	23.70 Pg.
13	MCHC Calculated	34.10 gm/dl	35.40 gm/dl	32.20 gm/dl	35.40 gm/dl	33.60 gm/dl	35.40 gm/dl	35.90 gm/dl	35.10 gm/dl	35.50 gm/dl	35.80 gm/dl	23.50 gm/dl	33.10 gm/dl	35.00 gm/dl	34.80 gm/dl	35.90 gm/dl
14	RDW-SD Flowcytometry	40.20 fL	40.40 fL	42.40 fL	39.20 fL	40.60 fL	39.00 fL	39.00 fL	38.30 fL	38.10 fL	38.80 fL	35.10 fL	39.90 fL	38.900 fL	39.90 fL	39.00 fL
15	RDW-CV Flowcytometry	17.70%	17.90%	17.80%	17.40%	17.60%	17.40%	17.60%	17.20%	17.10%	17.60%	17.40%	17.20%	17.60%	18.00%	17.70%
16	HCT Calculated	36.00%	39.50%	38.50%	36.40%	37.00%	34.70%	35.20%	36.60%	33.20%	32.60%	31.90%	33.00%	31.20%	32.50%	30.30%
17	MPV Automated Cell Counter	9.10 fL	9.2 fL	8.7 fL	8.60 fL	8.90 fL	8.6 fL	8.90 fL	8.90 fL	8.70 fL	8.60 fL	8.50 fL	8.50 fL	8.40 fL	8.90 fL	8.40 fL
18	PDW Automated Cell Counter	16.00 fL	15.8 fL	16.10 fL	15.90 fL	16.10 fL	15.90 fL	16.10 fL	16.00 fL	16.10 fL	15.90 fL	15.60 fL	15.90 fL	16.20 fL	16.30 fL	16.30 fL
19	PCT Calculated	0.25%	0.35%	0.23%	0.30%	0.25%	0.29%	0.26%	0.33%	0.28%	0.29%	0.23%	0.28%	0.24%	0.30%	0.25%
20	P-LCC Calculated	56.00%	76.00%	47.00%	56.00%	52.00%	54.00%	56.00%	69.00%	54.00%	56.00%	40.00%	49.00%	44.00%	64.00%	47.00%
21	P-LCR	20.10%	19.80%	17.70%	16.30%	18.60%	15.90%	18.70%	18.80%	16.80%	16.40%	14.70%	15.10%	15.40%	18.80%	16.00%
22	Serum Vitamin B12	138.00 pg/mL	154.00 pg/mL	135 pg/mL	130.00 pg/mL	135.00 pg/mL	141 pg/mL	144.00 pg/mL		154.00 pg/mL	157.00 pg/mL	175.00 pg/mL	150.00 pg/mL	152.00 pg/mL	147.00 pg/mL	152.00 pg/mL
23	Serum vitamin D Serum, CLIA	41.91 ng/mL		40.58 ng/mL	44.57 ng/mL	45.83 ng/mL	51.99 ng/mL	45.41 ng/mL		46.86 ng/mL	50.63 ng/mL	66.68 ng/mL	48.84 ng/mL	48.93 ng/mL	46.45 ng/mL	44.28 ng/mL
24	Serum Folate (Folic Acid) CLIA	4.75 ng/mL		5.08 ng/mL	6.79 ng/mL	8.75 ng/mL	6.69 ng/mL	6.21 ng/mL		7.36 ng/mL		7.26 ng/mL	7.28 ng/mL		9.05 ng/mL	7.95 ng/mL
25	serum Cortisol Serum, CLIA	5.61 ug/dL						16.53 ug/dL		20.22 ug/dL	14.45 ug/dL	18.40 ug/dL		13.60 ug/dL	5.81 ug/dL	14.93 ug/dL
	Thyroid Profile															
26	FT3 CLIA	3.60 ng/dL		3.43 ng/dL	3.15 ng/dL	3.66 ng/dL	3.22 ng/dL	3.15 ng/dL		3.39 ng/dL	3.62 ng/dL	4.02 ng/dL	2.98 ng/dL	3.22 ng/dL	3.47 ng/dL	

27	FT4 CLIA	0.91 ug/dL		0.93 ug/dL	0.75 ug/dL	0.83 ug/dL	0.89 ug/dL	1.02 ug/dL		1.10 ug/dL	1.17 ug/dL	1.33 ug/dL	1.04 ug/dL	0.95 ug/dL	1.08 ug/dL	1.03 ug/dL
28	TSH CLIA	2.73 uIU/mL		5.63 uIU/mL	2.80 uIU/mL	3.92 uIU/mL	4.47 uIU/mL	7.26 uIU/mL		6.48 uIU/mL	3.72 uIU/mL	3.93 uIU/mL	2.54 uIU/mL	4.00 uIU/mL	3.80 uIU/mL	3.58 uIU/mL
29	Urea Urease-GLDH (Serum)	16.96 mg/dl	33.59 mg/dl	23.43 mg/dl	41.98 mg/dl	44.35 mg/dl	64.16 mg/dl	63.68 mg/dl	65.34 mg/dl	61.46 mg/dl	61.02 mg/dl	64.85 mg/dl	53.44 mg/dl	47.10 mg/dl	41.21 mg/dl	43.02 mg/dl
30	Creatinine	0.99 mg/dL	1.77 mg/dL	1.07 mg/dL	1.67 mg/dL	1.34 mg/dL	1.47 mg/dL	1.38 mg/dL	1.40 mg/dL	1.31 mg/dL	1.51 mg/dL	1.34 mg/dL	1.36 mg/dL	1.30 mg/dL	1.39 mg/dL	1.28 mg/dL
31	Uric acid Uricase PAP	4.07 mg/dL		4.97 mg/dL	1.53 mg/dL		7.79 mg/dL	7.76 mg/dL	8.16 mg/dL	7.53 mg/dL	8.16 mg/dL	8.04 mg/dL	7.95 mg/dL	7.78 mg/dL	8.47 mg/dL	8.70 mg/dL
32	Total Bilirubin DPD	0.85 mg/dL	2.01 mg/dL	1.29 mg/dL	0.22 mg/dL	1.69 mg/dL	1.63 mg/dL	2.13 mg/dL	1.55 mg/dL	1.49 mg/dL	1.90 mg/dL	1.59 mg/dL	1.75 mg/dL	1.52 mg/dL	1.79 mg/dL	1.68 mg/dL
33	Direct Bilirubin DPD	0.13 mg/dL	0.27 mg/dL	0.17 mg/dL	24.40 U/L	0.27 mg/dL	0.25 mg/dL	0.28 mg/dL	0.15 mg/dL	0.26 mg/dL	0.28 mg/dL	0.24 mg/dL	0.24 mg/dL	0.19 mg/dL	0.22 mg/dL	0.23 mg/dL
34	SGOT - AST IFCC	19.40 U/L	27.00 U/L	20.20 U/L	13.20 U/L	24.80 U/L	28.90 U/L	29.50 U/L	42.20 U/L	31.00 U/L	33.80 U/L	28.90 U/L	31.00 U/L	26.90 U/L	34.60 U/L	27.50 U/L
35	SGPT - ALT IFCC	10.90 U/L	13.20 U/L	11.10 U/L	8.20 gm/dL	12.00 U/L	12.80 U/L	12.50 U/L	15.20 U/L	14.20 U/L	14.40 U/L	12.30 U/L	14.40 U/L	12.20 U/L	14.80 U/L	12.50 U/L
36	Total Protein Biuret	7.46 gm/dL	8.43 gm/dL	7.35 gm/dL		7.27 gm/dL	7.56 gm/dL	7.33 gm/dL	8.10 gm/dL	7.17 gm/dL	7.48 gm/dL	6.83 gm/dL	6.78 gm/dL	6.87 gm/dL	7.55 gm/dL	6.60 gm/dL
37	Albumin Spectrophotometry, BCG	4.17 gm/dL	4.67 gm/dL	4.05 gm/dL	4.49 gm/dL	4.12 gm/dL	4.25 gm/dL	4.20 gm/dL	4.70 gm/dL	4.12 gm/dL	4.44 gm/dL	3.98 gm/dL	4.00 gm/dL	3.86 gm/dL	4.30 gm/dL	3.79 gm/dL
38	Serum alkaline phosphtase - ALP ANP-AMP (Serum	99.20 U/L	117.5 U/L	100.10 U/L	106.70 U/L	97.70 U/L	97.90 U/L	100.30 U/L	107.80 U/L	97.00 U/L	98.00 U/L	84.40 U/L	88.20 U/L	86.00 U/L	90.90 U/L	91.60 U/L
39	Triglyceride (TG) GPO-POD	88.12 mg/dL		146.38 mg/dL	123.30 mg/dL	91.90 mg/dL	129.89 mg/dL	113.35 mg/dL	97.99 mg/dL	92.58 mg/dL	84.06 mg/dL	88.67 mg/dL	96.87 mg/dL	73.02 mg/dL	91.79 mg/dL	75.41 mg/dL
40	Glucose - Fasting Hexokinase	68.69 mg/dL	70.28 mg/dL		65.81 mg/dL					131.93 mg/dL						
41	Glucose - Random Hexokinase	68.69 mg/dL		73.59 mg/dL	65.81 mg/dL	79.87 mg/dL	100.01 mg/dL	77.41 mg/dL	71.55 mg/dL	131.93 mg/dL	77.62 mg/dL	81.86 mg/dL	78.79 mg/dL	79.45 mg/dL	77.29 mg/dL	70.41 mg/dL
42	Total Cholesterol CHO-POD	188.51 mg/dL		195.48 mg/dL	202.77 mg/dL	184.60 mg/dL	195.64 mg/dL	201.70 mg/dL	224.69 mg/dL	195.72 mg/dL	200.02 mg/dL	184.00 mg/dL	179.71 mg/dL	174.58 mg/dL	188.75 mg/dL	167.22 mg/dL

43	HDL - Cholesterol Enzymatic Immunoinhibition	54.05 mg/dL		53.24 mg/dL	56.09 mg/dL	51.37 mg/dL	49.51 mg/dL	51.18 mg/dL	56.68 mg/dL	47.48 mg/dL	51.02 mg/dL	45.63 mg/dL	44.09 mg/dL	42.40 mg/dL	46.67 mg/dL	40.37 mg/dL
44	LDL - Cholesterol Calculated	117.00 mg/dL		113.00 mg/dL	122.00 mg/dL	115.00 mg/dL	120.00 mg/dL	128.00 mg/dL	148.00 mg/dL	130.00 mg/dL	132.00 mg/dL	121.00 mg/dL	116.00 mg/dL	118.00 mg/dL	124.00 mg/dL	112.00 mg/dL
45	Serum Calcium Arsenazo III; O-Cresolphthalein complexone; Methylthymol blue	9.01 mg/dL	9.82 mg/dL	8.76 mg/dL	9.91 mg/dL	7.12 mg/dL	9.32 mg/dL	9.21 mg/dL		8.93 mg/dL		2.00 mg/dL	9.08 mg/dL	8.70 mg/dL	9.27 mg/dL	8.73 mg/dL
46	Serum phosphorus Phosphomolybdate/UV	4.36 mg/dL	3.66 mg/dL	4.20 mg/dL	5.30 mg/dL	4.14 mg/dL	4.34 mg/dL	4.57 mg/dL	4.58 mg/dL	3.76 mg/dL	3.67 mg/dL	3.99 mg/dL	3.85 mg/dL		3.31 mg/dL	3.90 mg/dL
47	Serum amylase IFCC (EPS)	121.06 U/L	109.86 U/L	107.48 U/L	97.86 U/L	89.93 U/L	79.32 U/L	80.81 U/L		81.80 U/L		82.10 U/L			80.71 U/L	71.98 U/L
48	Serum lipase Colorimetric	6.71 U/L	7.37 U/L	5.77 U/L	10.51 U/L					34.50 U/L					18.99 U/L	13.66 U/L
49	Serum CPK MB CK IFCC Method Plus Immunoinhibition		26.60 U/L		25.90 U/L	23.50 U/L	25.80 U/L	28.20 U/L				29.80 U/L	23.50 U/L		42.00 U/L	27.90 U/L
50	Serum LDH LDH (L-P) IFCC	173.00 U/L	296.40 U/L	141.70 U/L	181.90 U/L		197.10 U/L	189.30 U/L	377.10 U/L	176.00 U/L		173.90 U/L			210.30 U/L	136.70 U/L
51	IRON TPTZ	23.45 ug/dL	70.79 ug/dL	40.76 ug/dL	54.60 ug/dL	18.09 ug/dL	71.53 ug/dL	129.70 ug/dL	86.40 ug/dL	53.26 ug/dL	67.12 ug/dL	<1	62.97 ug/dL	26.44 ug/dL	40.43 ug/dL	30.28 ug/dL
52	Serum ferritin Latex Particle Immunoturbidimetric	8.00 ng/mL		8.00 ng/mL	10.90 ng/mL	11.90 ng/mL	14.30 ng/mL	15.50 ng/mL		14.80 ng/mL		10.10 ng/mL			14.40 ng/mL	11.90 ng/mL
53	Magnesium	1.87 mg/dl	2.06 mg/dl	1.96 mg/dl	2.34 mg/dl	2.00 mg/dl	2.05 mg/dl		2.39 mg/dl	2.25 mg/dl	2.56 mg/dl	1.35 mg/dl	2.42 mg/dl	2.23 mg/dl	2.33 mg/dl	2.17 mg/dl

	Dipstick(bromethylmol blue)															
64	Glucose Dipstick(Glucose Oxidase peroxidase & K+ iodide)							Absent			Absent				Absent	Absent
65	Pus Cells Microscopy							1 - 2 / HPF			6 - 8 / HPF				1 - 2 / HPF	1 - 2 / HPF
66	RBC'S Microscopy							Not seen			Not seen				Not seen	Not seen
67	Casts Microscopy							Absent			Absent				Absent	Absent
68	Crystals Microscopy							Absent			Absent				Absent	Absent
69	Epithelial Cells Microscopy							0 - 2 / HPF			8 - 10 / HPF				5 - 6 / HPF	5 - 6 / HPF
70	Bacteria Microscopy							Absent			Absent				Absent	Absent
71	Others Microscopy							Absent			Absent				Absent	Absent

Netaji Subhash Chandra Bose Medical College Jabalpur

Nagpur Road Jabalpur, Madhya Pradesh,Jabalpur

Bill Receipt (Paid)

Print Date/Time : 22-May-2024 07:39 PM

UHID No.	240900192992	**Bill No**	463101
Patient Name	Dadaguru	**Bill Date**	22-May-2024 07:39:35 PM
Age/Gender	45 Years / Male	**Visit Date**	22-May-2024
Visit ID	OP0001		
Refund Ref.		**Consulting Doctor**	
Advance Ref.		**Corporate Name**	NILL
Payment Ref.		**OPD/IPD Number**	202400256444

ervice Name	Quantity	Rate	Gross Amount	Debit(Rs.)
Service Type : Services				
Emergency Observation	1.00	100.00	100.00	100.00
		Sub Total:	**100.00**	**100.00**

Bill Amount :	100.00
Service Charges :	0.00
Grand Total :	100.00
Discount Amount (100.00%) :	-100.00
Tax(None) :	0.00
Total :	**0.00**
Less Advance :	**0.00**
Net Payable :	0.00
Collected Amount :	0.00
Balance Amount :	

..emark free by superitend

Prepared By : pchohte[illegible]

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सहमति पत्र

मैं दादाराव ..... पेता .....

स्वेच्छा से नेताजी सुभाष चन्द्र बोस मेडिकल कॉलेज जबलपुर में निराहार रहते हुए शारीरिक प्रभाव शोध कार्य हेतु भर्ती हो रहा हूँ। मैं यहां 07 दिवस तक भर्ती होने की स्वीकृति देता हूँ। इस अवधि में जिस कक्ष में रहूँगा वहाँ सतत रूप में सी.सी.टी.वी. व चिकित्सकीय निगरानी में रहूँगा। तथा अस्पताल के मेडिकल एवं पैरामेडिकल स्टॉफ मेरा निरीक्षण सतत रूप से कर सकते हैं। सभी शारीरिक पैथोलॉजी, बायोकेमिकल टेस्ट, ईसीजी एवं अन्य चिकित्सकीय परीक्षणों की अनुमति देता हूँ। मेरे द्वारा उपयोग में लाये जाने वाले जल की परीक्षण की अनुमति देता हूँ। इस अवधि में कक्ष में रहने के अलावा नर्मदा पथ में भी मेडिकल एवं पैरामेडिकल पैथोलॉजिकल टेस्टों की जांचों की अनुमति देता हूँ। इसकी समस्त जवाबदारी मेरी होगी। किसी प्रकार की शारीरिक हानि हेतु मैं मेडिकल स्टॉफ को जिम्मेदार नहीं ठहराऊंगा।

दिनांकः— 22/05/2024

समयः— 11:00pm

हस्ताक्षर

नाम.....

उम्र/लिंग..... दादाराव 45 वर्ष / पु.

पता.....

साक्षी के हस्ताक्षर

नाम—1. सौरभ चौरसिया

2 कल्याण सिंह तोमर