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Review Article

Dealing Fatty Liver through HHH- 'Homoeopathy & Hepatic Health' Care

Dr. Tridibesh Tripathy^{1*}, Professor Shankar Das², Dr. Umakant Prusty³, Dr. Chintamani Nayak⁴, Dr. Lipipuspa Devata⁵, Dr. Padmalaya Rath⁶, Dr. Madan Mohan Mishra⁷, Dr. Manjushree Kar⁸, Dr. Pramod Bihari Pradhan⁹, Prof. Rakesh Dwivedi¹⁰, Dr. Mohini Gautam¹¹

¹BHMS (Utkal University, Bhubaneswar), MD (BFUHS, Faridkot), MHA (TISS, Mumbai), Ph.D. in Health Systems Studies (TISS, Mumbai), Homoeopathic & Public Health Expert, Visiting Professor, Master of Public Health (Community Medicine) program, Department of Social Work, Lucknow University, Lucknow, UP, India

²Dean, School of Health Systems Studies, Tata Institute of Social Sciences, Mumbai & Former Director, IIHMR, Delhi, India

³Research Officer (Homoeopathy), Regional Research Institute (Homoeopathy), Puri, Odisha under Central Council for Research in Homoeopathy, Ministry of AYUSH, Government of India

⁴Assistant Professor, National Institute of Homoeopathy, Kolkata, West Bengal, Government of India

⁵Research Officer (Homoeopathy), Scientist III, Homoeopathic Drug Research Institute, National Homoeopathic Medical College Campus, Gomti Nagar, Lucknow, UP, India

⁶Research Officer (Homoeopathy), Scientist III, Central Council for Research in Homoeopathy, Noida, Uttar Pradesh, India

⁷Homoeopathic Practitioner with 30 years of Experience, Anugul, Odisha, India

⁸Department of Pharmacy, Dr. Abhin Chandra Homoeopathic Medical College & Hospital, Bhubaneswar, Odisha, India

⁹Nodal Officer (Homoeopathy), Directorate of AYUSH, Government of Odisha, Bhubaneswar, India

¹⁰Co-ordinator, Master of Public Health (Community Medicine) program, Department of Social Work, Lucknow University, Lucknow, India

¹¹Assistant Professor, Faculty, Master of Public Health (Community Medicine) program, Department of Social Work, Lucknow University, Lucknow, UP, India

*Corresponding Author: Dr. Tridibesh Tripathy

BHMS (Utkal University, Bhubaneswar), MD (BFUHS, Faridkot), MHA (TISS, Mumbai), Ph.D. in Health Systems Studies (TISS, Mumbai), Homoeopathic & Public Health Expert, Visiting Professor, Master of Public Health (Community Medicine) program, Department of Social Work, Lucknow University, Lucknow, UP, India

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Abstract: Background [12, 18]: The current article looks into the aspects of HH disorders during the life period out of which fatty liver is one of the main challenges. The article looks into the brief history of public health programs on hepatic health issues in India & the emergence of fatty liver as an issue. It moves on to the current situation on fatty liver in India & the role of Homoeopathy to deal with these disorders therapeutically as a component of Ministry of AYUSH. The article suggests the integration of medical pluralism in hepatic health through inclusion of Homoeopathy in the gamete of HH health. As each & every drug in Homoeopathy is only proved on human beings, all the drugs have a mental component as it is only human beings who can express their physical & mental symptoms during proving of the drugs as per the guidelines set by the Homoeopathic Research Councils (HRC) of each nation. In India, Central Council for Research in Homoeopathy, an autonomous body under the ministry of AYUSH lays out such guidelines. The article gains more relevance during the current COVID 19 pandemic which has precipitated the stress levels of population since March 2020 and most of them are more prone to liver disorders during their life stage.

Keywords: HH, Homoeopathic Materia Medica, NAFLD, AFLD, NASH, Constitutional medicine, Nosode, Bach Flower Remedy, Bowel Nosode, Miasms.

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Outline of the Article [1, 3, 9, 12-15, 29]

Currently, the fear of COVID 19 has led people to believe that guzzling on supplements can help them keep COVID 19 at bay. On the contrary, these drugs (Self-prescribed Allopathic & AYUSH

supplements) do more harm than good. These drugs generate common antinuclear antibodies that start attacking liver cells and induce acute hepatitis with Auto Immune Hepatitis (AIH) like features.

The current article deals with an ancient subject and the organ that is the seat of the human body. Hence, the issue is also a challenge for the medical fraternity and the population as well. Both these fraternity go through the hepatic related health issues in their daily lives. The issue is clubbed as 'Hepatic Health' (HH) issues which are troubling the commonest human being at one end to that of the scientific community at the other end. Currently, the pandemic has just acted as a catalyst to augment the problem further.

One of the commonest medicine in Homoeopathy 'Hepar Sulph' is named after the liver although it is prepared from 'Calcium Sulphide'. 'Hepar' in Latin language means liver and 'Liver of Sulphur' was the name given to several sulphur compounds whose colour was supposed to resemble that of the liver. Hence, the medicine is an impure sulphide of calcium prepared by burning the white interior of oyster cells with pure flowers of sulphur in a crucible. This is how Dr. Hahnemann gave the drug to the humanity after human clinical trials.

Another medicine called 'Hepatica Triloba' or with the common name 'Liver Wort' has derived its name from a fancied resemblance of its leaves to the shape of the liver. The point is that word liver or hepatic is an integral part of the Homoeopathic Pharmacy and Materia Medica.

The modern medicine through the existing treatment or advanced clinical development deals with the problem with chemical medications for the hepatic system where as this article focuses on Homoeopathic system of medicine. Homoeopathy is clinically effective, cost effective and has no side effects. As all the homoeopathic medicines go through human clinical trial or are proved on human beings, all medicines have a mental aspect during the trials. This shows that there are N numbers of medicines in homoeopathy for the Hepatic Health (HH) issues like fatty liver, the issue that the current article deals with.

The article also includes the AFLD (Alcoholic Fatty Liver Disease) also called alcoholic steatohepatitis. It is due to heavy alcohol use. ALFLD is the first stage of disease and the second stage is alcoholic hepatitis and the third stage is alcoholic cirrhosis. Chronic Liver Disease (CLD) caused 1.32 million deaths in 2017 globally.

The current piece deals with some of the leading medicines based on the clinical experience of the lead author. Readers are requested to adhere to the treatment protocol discussed here in this article.

The reader will get an idea of the problem of fatty liver at global & national level through the eyes of clinical health in the beginning sections before delving in to the Homoeopathic system of the AYUSH platform. Currently, the AYUSH platform has regained its value

in the era of the current pandemic. The pandemic has escalated the fatty liver issues further. In the absence of effective therapy in the modern medicine, the article peeps through what homoeopathy can offer to deal with HH issues that fulfil the triad criteria of essential medicines as per the National List of Essential Medicines (NLEM). The criteria is that these medicines need to be effective clinically, safe clinically and should be without side effects.

INTRODUCTION [5-8]

India launched National Programme for Prevention and Control of Cancer, Diabetes, Cardio Vascular diseases and Stroke (NPCDCS) in 2010 and it covered the entire country by 2017.

India integrated the NAFLD with NPCDCS on 22nd February, 2021. The importance of tackling NAFLD as a step to tackling India's burden of noncommunicable diseases is a step in this direction. Epidemiological studies suggest the prevalence of NAFLD is around 9% to 32% of the general population in India with a higher prevalence in those with overweight or obesity and those with diabetes or prediabetes.

Researchers have found NAFLD in 40% to 80% of people who have type 2diabetes and in 30% to 90% of people who are obese. Studies also suggest that people with NAFLD have a greater chance of developing cardiovascular disease. Cardiovascular disease is the most common cause of death in NAFLD. Once the disease develops, there is no specific cure available, and health promotion and prevention aspects targeting weight reduction, healthy lifestyle, and control of aforementioned risk factors are the mainstays to disease progression and prevent the mortality and morbidity due to NAFLD.

As there is no specific cure, it is here that the Homoeopathic approach will come handy for the public, private and corporate bodies provided these bodies integrate the therapeutic system in the existing health system while accepting the principle of medical pluralism.

NAFLD is an independent predictor of future risk of cardiovascular diseases, type 2 diabetes and other metabolic syndromes like hypertension, abdominal obesity, dyslipidaemia, glucose intolerance. Existing NPCDCS programme strategies can easily be aligned to prevent NAFLD through lifestyle changes, early diagnosis, and management of associated noncommunicable diseases as well as NAFLD. The main focus is on health promotion and prevention of common NCDs which would also specifically cater to the identified needs of NAFLD.

The Ministry of AYUSH since November 2014 is using its network of public and private partners

and here homoeopathy as a component is addressing the issue of HH.

About Fatty Liver Disorders [4, 5, 8, 29-32]

The epidemiology of non-alcoholic and alcoholic fatty liver diseases informs that the pooled prevalence of Non-Alcoholic Fatty Liver Disease (NAFLD) globally is 25.24% or 25-30% with wide geographic variation across the world. The prevalence rates are mostly ultra sound based with Middle East and South Africa on the top of the list with Africa at the bottom.

The absolute number of CLD cases inclusive of any stage of disease severity is estimated at 1.5 billion worldwide. The most common causes of prevalent diseases are NAFLD (59%), Hepatitis B Virus (HBV) at 29%, Hepatitis C virus (HCV) at 9% and Alcoholic Liver Disease (ALD) at 2%.

Non- alcoholic fatty liver disease is defined as storage of excess macro vascular fat i.e. more than 5% of the hepatocytes because of a perturbation of the homeostatic mechanisms that regulates synthesis versus utilization of fat in the liver.

The GOI guidelines defines NAFLD as the abnormal accumulation of fat in the liver in the absence of secondary causes of fatty liver, such as harmful alcohol use, viral hepatitis, or medications is a serious health concern as it encompasses a spectrum of liver abnormalities, from a simple Non-Alcoholic Fatty Liver (NAFL, simple fatty liver disease) to more advanced ones like Non-Alcoholic Steato Hepatitis (NASH), cirrhosis and even liver cancer.

Over the last two decades global burden of NASH has more than doubled. Globally, NASH caused 40 lakh prevalent cases of compensated cirrhosis in 1990, which increased to 94 lakh cases in 2017. NAFLD is emerging as an important cause of liver disease in India.

About the Diagnosis and Stages of Fatty Liver Disease [2, 7]

Fatty liver which was thought to be a harmless pathological manifestation is turning out to be leading to serious ailments. Out of the 25-30% prevalence at global level, 5-12% of these patients may progress to end stage liver failure like cirrhosis or hepatocellular carcinoma.

In the initial stages, NAFLD is asymptomatic and thus goes undetected. It is often diagnosed accidentally during abdominal ultrasonography where the liver presents increased homogenous echotexture accompanied by heapatomegaly or enlarged liver. In the Liver Function Test (LFT), the enzyme Serum Glutamate Pyruvate Transminase (SGPT) may or may not be elevated.

The next stage leads to inflammation in the liver. Here, the liver will enlarge abnormally and demonstrate features of steatohepatitis or NASH as mentioned above. Here, the enzymes like SGPT along with Serum Glutamic Oxaloacetic Transaminase (SGOT) are significantly enhanced and liver malfunction related secondary symptoms manifest in the body.

The secondary symptoms are pain in the right quadrant of the abdomen, gastro intestinal problems and raised or abnormal lipid profiles. Till the early stages of NASH, the disease is reversible as per clinical researchers. It is difficult to reverse once NASH moves on to the advanced stage. Here it may lead to slow or rapid liver failure.

The phase followed by NASH is demonstrated through liver fibrosis. As scar tissues develop, the liver shrinks in size. Here, the liver parameters are severely impaired including high Gamma Glutamyl Transferase (GGT) enzyme, jaundice, liver ascites, Cirrhotic changes lead to secondary symptoms like fever, opportunistic infections, chronic indigestion, impaired glucose metabolism. High inflammatory markers like the Tumor Necrosis Factor (TNF) which is a cytokine are elevated. Transforming Growth Factor- Beta (TGF- β) also an inflammatory marker gets elevated. The cirrhotic changes trigger towards Hepato Cellular Cancer (HCC). Further, multi organ failure sets in leading to death.

Prognosis and Way Forward [2, 9, 10, 13, 22, 28]

The modern medicine provides liver transplant as the only alternative but unluckily it is not feasible for the masses economically. The best way out is that the disease is reversible at the NAFLD stage through life style modifications. Allopathy has no effective drug to reverse the disease at the NAFLD stage.

Genetic factors play a very minor role in NAFLD. A particular variation in the PNPLA3 (Patatin like Phospho Lipase domain containing protein 3) gene is associated with NAFLD. PNPLA3 gene is a lipid droplet associated protein that has been shown to have hydrolase activity towards triglycerides and retinyl esters. This gene provides instructions for making AdiPoNutrin (ADPN) protein found in fat cells or adipocytes and liver cells or hepatocytes. Lifestyle modifications are best to ward off such bad genes. These include avoiding sedentary life style, fat rich diet and a carbohydrate rich diet.

Traditional Indian food habit is the best antidote as it is a tried and tested balanced diet. Fatty liver patients should consume a balanced, healthy and calorie restricted that should be within 1500 calories per 24 hours. Adding a brisk walk of 30-40 minutes per 24

hours is another proven and effective way to reverse fatty liver.

The traditional Indian diet addresses to reduce the basic inertia of the body that is known as 'Tamasic' quality as per Ayurveda. Alcohol, fat rich, oily, nonvegetarian and spicy foods are clubbed under the 'Tamasic' diet. Next quality to be addressed is 'Rajasic' or 'king's diet' in English. This is the diet that induces half of all inertia in the body. The carbohydrate, nonvegetarian and protein rich diet falls in this category. The third and the least inertia inducing diet in the body is 'Sattvic'or the balanced and vegetarian diet that includes dairy products, fruits, green vegetables and green leafy vegetables. Hence, in a month, the habit should be to eat the 'Rajasic' diet once a week or 4 times a month, the 'Tamasic' once a fortnight or twice a month and the rest 24 days should be for 'Sattvic'. These habits are the front line care for the fatty liver patients.

These three types of foods influence the miasmatic conditions in the body there by preventing the body to be prone to diseases. Regular consumption of 'Tamasic' diet will aggravate the syphilitic condition while regular intake of 'Rajasic' diet will aggravate the sycotic miasm and finally regular consumption of 'Sattvic' foods will aggravate the psoric miasm in the body. The body needs variety of macro and micro nutrients that will only come through a judicious mixture of these three diets.

The precipitating factors are the 'fast food' urban culture that leads to high consumption of junk food that is high in calories. Adding to that is the deviation from traditional food practices. These risk factors are best avoided.

Homoeopathic Approach [15-20, 26]

As already mentioned above, all Homoeopathic medicine has physical and mental symptoms as the drugs are proved on human beings. Given below are Homoeopathic medicines that are primarily from four sources. These are H.C. Allen's Key notes, Robin Murphy's Materia Medica, Phatak's Materia Medica & Boericke's Materia Medica. These four text books are used to teach homoeopathic students who become qualified homoeopaths later. The treatment plans for the HH disorders mentioned above are given below.

The issues like HH can be resolved through the Universal Health Coverage (UHC) where the AYUSH systems like homoeopathy can play an active role. The network of private, public and corporate system can come handy here. The inclusion of the traditional systems like homoeopathy can play a vital role to achieve UHC in India as reinforced by a published article on the issue of UHC.

Homoeopathic Treatment Protocol [15-24]

These are HH cases which were on medications for long and subsequently these cases became resistant to treatment post the NAFLD. Each homoeopath should remember that exercise and diet are the main stay of the treatment. A prescription of exercise of 45 minutes of brisk walking per day, the Indian diet as mentioned in the prognosis and care section are a must along with the homoeopathic medicines.

The treatment plan is on the lines of the physiology, pathology and biochemistry of HH patients as mentioned above.

The first approach is the miasmatic approach. In homoeopathic system of medicine, miasms are disease causing dynamic influences that are infectious in nature. Miasmatically, if the HH patient has physiological issues only, anti Psorics are to be prescribed.

If the HH patient has hepatomegaly and ascites, anti Sycotics are to be prescribed.

If the HH patient has conditions like liver cirrhosis, anti-Syphilitics are to be prescribed.

Specifics

For asymptomatic stage when it is diagnosed through ultrasonography. There is hepatomegaly with raised SGPT. Prescribe 'Chionanthus'-Q in drop doses along with 'Ferrum Iod' in potencies.

For NASH- Prescribe 'Ferrum Iod' and 'Ferrum Ars' in trituritions along with 'Argentum Iod' and 'Aconitum Lycotonum' in potencies.

For secondary symptoms in NASH stage-Prescribe 'Podophyllum' and 'Ptelea Trifoliata'in potencies along with 'Natrum Cholenicum' in potencies as well. 'Myrica-Q' is to be prescribed in drop doses as well. If there is abnormal lipid profile, prescribe 'Gauterria Gaumeri-Q' along with 'Fel Tauri' and 'Cholesterinum' in trituritions.

For liver fibrosis- Prescribe 'Syphilinum' in potencies along with 'Taraxacum-Q', 'Scrophularia Nodosa-Q' and 'Cardus Mar-Q' in drop doses. 'Thiosinaminum' is also to be prescribed in trituritions.

For high GGT, prescribe 'Chelidonium-Q', 'Andrographis Panniculata-Q' 'Cortisone' in potencies.

For Jaundice, prescribe 'Natrum Phos' in low trituritions along with 'TNT', 'Blatta Americana' and 'Lupulus' in potencies along with 'Nyctanthes Arb-Q' in drop doses.

For ascites, prescribe 'Ascites Fluid' and 'Elaterium' in potencies along with 'Argemone

Mexicana-Q' and 'Eel Serum-3X'in drop doses. Other diuretics like 'Boerrhavia Diffusa'-Q, 'Apocyanum-Q', 'Apis Mel-Q', 'Acetic Acid-Q' can also be prescribed.

For secondary manifestations like fever due to cirrhosis, prescribe 'Acetanilidum' and Brucella Melitensis' in potencies along with 'Swertia Chiraita-Q' in drop doses. 'Pyrogen' can be prescribed in high potencies once a week.

For opportunistic infections prescribe 'AIDS Nosode' in potencies along with 'Echinacea-Q' and 'Azadirachta Indica-Q' in drop doses.

For chronic indigestion, prescribe 'Colon' and 'Aristolochia Serpentaria' in potencies along with 'Podophyllum-Q' in drop doses. The bowel nosode 'Dysentery Compound' can also be prescribed in potencies. 'H. Pylori' can also be prescribed in potencies.

For impaired glucose metabolism, prescribe 'Arsenic Bromatum-Q' along with 'Alloxan' in potencies. 'Pancreatinum' in trituritions and 'Calcarea Ars' in potencies can be prescribed to keep the pancreas healthy so that glucose metabolism normalises.

For raised TNF and TGF-beta, prescribe 'Aconitine', 'Prednisolone', 'Cortisone' in potencies. 'Yucca Filamentosa-Q' should be given in drop doses.

For hepatocellular carcinoma, prescribe 'Cholesterinum' in trituritions along with 'Carcinosin' and 'Aurum Ars' in potencies.

For turning off bad gene like PNPLA3, prescribe 'Curcuma Longa', 'Lycopersicum Esculentum', 'RNA' and 'DNA' in potencies. A constitutional medicine needs to be prescribed on generalities and the dose should be once a week.

For AFLD, prescribe 'Syphilinum' in potencies once a week and 'Alcoholus' in potencies regularly. 'Quercus Glandius Spiritus-Q' and 'Angelica-Q' in drop doses are also to be prescribed.

Conventionals

Here, medicines that act on liver and gall bladder are to be prescribed so that the chronic effects of the hepatic health are addressed.

For action on Liver- It is possible that these cases would have taken the common homoeopathic medicines before they became HH chronic cases. Hence, the treatment plan suggested here is different.

Medicines like 'Hepatitis B Virus', 'Hepatitis B Vaccine', 'Momordica Charantia', 'Natrum Hypophos', 'Brassica Murialis', 'Boletus Satanus', 'Leptospira Interrogans' in potencies and 'Calculi Bili' in trituritions should also be given.

Burden of Disease [25, 27]

Table 1: Prevalence of alcohol consumption among adults in India (Source-NFHS 5, 2019-21)

Indicator	Gender	Rural	Urban	Total
Percentage of Women age 15 years and above who consume alcohol	Female	1.6	0.6	1.3
Percentage of Men age 15 years and above who consume alcohol	Male	19.9	16.5	18.8

This reflects the magnitude of the problem in the country as well as the steps that the nation needs to take to deal with the crisis. So 1.3% of females and 18.8% of males in the age group of 15 years and above currently consume alcohol are the target groups to be converted to HH cases especially AFLD. It is significant to note that rural India is more alcoholic than urban India. This infers that consumption of country liquor is more than the branded ones. This compounds the problem of Hepatic Health (HH) as rural people are at risk of consuming spurious liquor.

Currently, the Crude Death Rate includes Non-Communicable Diseases (NCD) deaths and this trend is catching up as NCDs have the upper hand than the Communicable Diseases (CD) as a result of epidemiological transition. NAFLD is a result of such transition.

In India, Homoeopathy is the third preferred system of treatment after Allopathy and Ayurveda.

About 10% of the population depends on Homoeopathy for their health issues.

Homoeopathy is used by 10% of the population in India. So, out of the 1300 million populations, 130 million use Homoeopathy or 130 million use Homoeopathy for their health issues. These 130 million consist of all age groups i.e. infant to old age. A section among the 15+ age group suffers from alcoholism as per NFHS 5. Considering that, it is $2/3^{rd}$ of the population in India (15-65+ year age group) or 100 crore or 1000 millions. Out of this 100 crores, 20% consume alcohol or 5 crore are alcoholic. These people are at risk of AFLD and from the rest 125 crore, using the prevalence rate of NAFLD, 25% will suffer from NAFLD or 31 crore will have NAFLD. So the the total Chronic Hepatic Disease will be 31+5= 36 crore. As 130 million use homoeopathy, 2/3rd of the users will be in 15-65+ year age group or 98 million. So if homoeopathy in integrated in to the Hepatic Health (HH) battle in India, 98 million people can be saved from being HH cases.

CONCLUSION [9, 15-24]

As all drugs in homoeopathy have a group of mental symptoms, Homoeopathy is and will be effective against HH disorders in general. The current article adds another feather in the Homoeopathic cap as it can deal with the probable upcoming of large number of cases of HH disorders in view of high stress levels due to the ongoing COVID 19 crisis. However, it should be also seen that along with constitutional/deep acting/polychrest homoeopathic medicines, specific medicines are also required to deal with the cases. Simultaneously, nutrition, counselling and all psychic health modalities like life style modification and stress reduction are adhered in each case.

In fact, the detailed case taking of a case & empathetic hearing are the elements of supportive therapy as HH cases are chronic and resistant. The Homoeopathic approach of case-taking/anamnesis exactly fits into the criteria of supportive therapy. Hence, as a part of treatment, the supportive therapy is inherent in Homoeopathic treatment. Green leafy vegetables & nuts are to be added in the diet in order to enable the body to improve organ functions and liver is one such organ. The vegetarians should be supplemented with Vitamin B12 & Zinc supplements as these are good for HH health & diets of vegetarians lack these nutrients. The primary sources of these two supplements are sea food & non-vegetarian foods.

The Homoeopathic fraternity should be ready to cover the masses as there is no other therapeutic system that can cover the masses effectively while being economical and cost effective. Simultaneously, it has a wide range of medicines as seen in the contents of the sections mentioned above.

Declaration of the Lead Author

Prof. Shankar Das was the Ph.D. guide of the lead author at Tata Institute of Social Sciences, Mumbai. The lead author also certifies that he has expressed his personal opinion based upon his public health and clinical experiences. The treatment approach or the medicines suggested are only suggestive in nature.

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