

**EFFECTIVE AYURVEDIC MANAGEMENT OF SEVERE HEPATITIS OF UNKNOWN
AETIOLOGY IN PREGNANCY-A CASE REPORT*****¹Sarita Pradip Gaikwad, ²Pradip Yashwant Gaikwad,**

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ABSTRACT

Pregnancy is a unique clinical state with several normal physiological changes that influence body organs including the liver. Liver disease may cause significant morbidity and mortality in both pregnant women and their infants. Despite tremendous progress made by modern medicine, it is a fact that reason of severe Hepatitis has been poorly understood. After ruling out all possible causes of hepatitis, we come to the conclusion of diagnosis as Hepatitis of unknown aetiology. **Case study:** This 27 year old pregnant woman developed hepatitis in second month of gestation. Her Serum Bilirubin and other parameters of Liver function tests were very high. All possible causes of Hepatitis were ruled out. Finally she was labelled as a case of Hepatitis of unknown aetiology. The guidelines of treatment of such cases are not clearly spelt out. She was referred to Ayurved. She was treated by Ayurvedic line of treatment. Within 2 months of Ayurvedic treatment, all the Liver function tests became normal. She was treated adequately by Ayurvedic treatment throughout her pregnancy. Her delivery was uneventful and healthy male baby was born. There is no relapse of Hepatitis after 4 years of follow up. Conclusion:-Ayurved has promising role in managing severe Hepatitis of unknown origin.

KEYWORDS: Acute hepatitis of unknown origin, Acute liver injury, Ideopathic hepatitis, Kamala.

INTRODUCTION

Acute hepatitis of unknown aetiology generally refers to liver injury caused by exclusion of known infectious or non-infectious factors including autoimmune hepatitis. Acute hepatitis is caused by multiple pathogenic factors as mentioned above, invading the liver, damaging hepatocytes and liver function causing severe clinical symptoms.^[1] Patients frequently present with nonspecific prodromal symptoms such as fatigue, anorexia, nausea, and low-grade fever, which are often followed by classical signs of liver injury like jaundice (yellowing of the skin and eyes), dark urine, pale stools, and right upper quadrant abdominal discomfort. The course of disease does not last for more than 6 months.^[2] The

common pathogenic factors of Acute hepatitis are viruses, bacteria, parasites, chemical poisons and alcohol. Acute hepatitis cases of unknown origin have been reported in children^[3] and adults.^[4] Incidence of Acute hepatitis cases of unknown origin in children have been reported to be between 30-50%^[5] while that in adults varies with the range from 11-75%^[6-8] yet no clear treatment guidelines exist. Though research has been carried out in children suffering from Hepatitis of unknown origin, very less has been done in case of adult counterparts.

CASE STUDY

This 27 year old primigravida developed hepatitis in second month of gestation.

She C/o Nausea, vomiting, passing of yellow coloured urine, loss of appetite and fatigue. Her liver function tests values were abnormally raised. She was undergone a battery of tests, which could not reveal cause of her Hepatitis. She was pregnant and there was potential risk to the mother and the foetus.

Let us look at the investigation reports

Hb-9.3 gm%, WBC-8700/cmm, Neutrophil-76%, Lymphocytes-18%, Eosinophil-4%, Monocytes-2%, Basophil-0 %

RBC- 5.07 million/cmm, Platelets-5,82000/cmm-Raised RBC morphology- Anisocytosis, Microcytic, Moderate hypochromic,

WBC morphology-Normal

Malarial parasite not seen.

Total Proteins- 6.4 gm/dL, S. Albumin- 3.61 gm/dL; S. Globulin- 2.79 gm/dL; AG ratio-1.29

Serum Bilirubin Total-7.46 mg%

Serum Bilirubin Direct-3.83 mg%; Bilirubin indirect-3.63 mg%

SGPT-680.4 IU/L; SGOT-540.8 IU/L; Alkaline phosphatase-149 U/L

Prothrombin time-17.7 Sec PT (INR)-1.47

HIV 1 & 2- Non reactive

HBSAg-Non reactive

Anti HCV-Non reactive

Anti HAV IgM test-0.01 Negative

Anti HEV IgM test-0.12 Negative

24 Hr urine-7.5 L; Copper urine-22.93 ug/L

Copper 24 Hr urine-171.98 ug/24 hrs

Ceruloplasmin test-0.43 Normal

Iron % of saturation-68% -High

Autoimmune Hepatitis Panel 1

Anti nuclear AB-IFA HEP 2, Serum-(Anti Nuclear antibodies) -Negative

Anti Smooth muscle ABS (IFA), Serum (Anti Smooth muscle antibodies)-Negative

Anti Mitochondrial Antibodies (AMA)- Negative

Liver-Kidney Micro ABS, Serum- 3.06 units- Negative

Immunohepatology

Indirect Coomb's test-Negative

Hemoglobin variant Analysis

Haemoglobin A-94.1% Low

Haemoglobin A2-4.9%; High-suggestive of Thalassemia trait

Haemoglobin F-0.5%; Unknown unidentified peak-o.8%

Immunoglobulin profile**USG Abdomen and Pelvis dated 9.12.2021**

Liver- Size-150 mm, Mildly enlarged, Liver echogenesity, echotexture-Normal. No evidence of surface irregularity. PV-9.4 mm at Porta Hepatopetal

flow with random PFV 37 cm/sec. No focal lesion seen. Intrahepatic portal and Biliary radicals appear normal.

Spleen-Size-125 mm. Mildly enlarged

Rt. Kidney-Size 99 x 32 mm Normal. CMD-Normal. No calculus seen. Lt Kidney- Size 96 x 39 mm Normal CMD-Normal. No calculus seen

Uterus-Gravid with single live intra uterine gestation- Approximate Gestational Age 11-12 weeks.

Impression

- Mild Spleenomegaly, Liver echotexture normal
- Screening by Shear Wave Elastography (SWE) shows high elasticity values average-7.7 kPa, (Kindly follow up 4-6 hr fasting)

She was referred to Ayurved on 3/12/2021.

She, C/o Nausea- 1 month

Vomiting- 15 days

Yellow discolouration of urine-15 days

Easy fatigability-15 days

Obstetric history: LMP-20.9.2021 EDD-27.6.2022

Primi gravida with spontaneous conception, Early ANC.

Gyn history-Menstruation-Regular Interval: 30-35days

Past history: No H/o Diabetes, Hypertension, Thyroid disorders, Drug allergy, Surgery

Blood group-B+ve

COVID vaccination-2 doses completed

Family history: H/o Diabetes mellitus type 2 to grand mother

O/E: Afebrile, Pulse-78/min, B.P.-98/66 mm Hg Respiration-18/ min

Conjunctiva-Yellow, Nails-Yellow, Skin-Yellow discoloration

RS, CVS-Nothing abnormal detected

P/A- Liver not palpable, Spleen-Mild enlargement noted.

CNS-Normal

Diagnosis:- Hepatitis of unknown aetiology with pregnancy she was advised, following treatment.

1. Tab Kamdudha (Mauktik yukta) 1 BD - 15 days
2. Tab Suvarna Sutshekhar Ras 1 BD - 15 days
3. Tab Garbhpal Ras 2 BD - 3 months
4. Phaltrikadi kadha 2 TSF BD -3 months

On 20.3.2022, she came for follow up. She was almost normal, with no signs of jaundice noted. She was asymptomatic. Her appetite was increased. She regained her strength.

She was advised for 3 months.

1. Tab Kamdudha (Mauktik yukta) 1 BD
2. Phaltrik Kadha 2 TSF BD
3. Tab Garbhpal Ras 2 BD
4. Tab Madhumalini vasant 1 BD
5. Shatavari churna 100 gm + Sariva 50 gm + Sunthi 2 TSF - Mix this thoroughly take half TSF of the mixture in preboiled one cup of milk + one cup water(boil it till half remains) + Add Candy sugar (Khadisakhar) 3 gm twice daily.

After one month of this treatment, patient reported with complaints of urinary tract infection and her urine showed plenty of pus cells. She was treated by following treatment.

Tab Chandraprabhavati 1 BD -15days

Tab Gokshuradi guggul 1 BD -15days

Punarnava Kashay 1 TSF BD -15days

Tab Garbhpal Ras 2 BD continued

Tab Sookshma Triphala (Rasashala, Pune) 1 BD--15days

It cured the U.T.I. within 15 days.

Her LFT function was assessed.

Let us compare it with earlier reports.

Test	29.11.2021	8.12.2021	24.1.2022	18.2.2022	17.3.2022
Bilirubin total mg/dL	6.50	4.41	1.47	0.59	0.30
Bil direct mg/dL	5.80	3.77	0.58	0.20	0.11
Bil Indirect mg/dL	0.70	0.64	0.89	0.39	0.19
SGPT IU/L	420.8	412	285.80	71.40	21.90
SGOT IU/L	550.0	589	287.10	40.50	25.30
Alk.phosphatase U/L	138	146	85.30	82.70	114.70
Prothrombin time Sec	17.7	15.9	19.7	15.2	14.9

As mentioned earlier, Ayurvedic treatment was started from 3.12.2021 and it is pointed out that within 10 weeks of treatment, most of the parameters came within normal range and after three and half month of treatment all parameters came within normal range.

She was undergone LSCS surgery and delivered healthy male child on 23.6.2022. Birth weight- 2.5 kg. Post surgery was uneventful. There was no congenital anomaly in the foetus.

DISCUSSION

This case had developed Hepatitis in pregnancy. In this case the hepatic function was grossly deranged as noted from her clinical condition of jaundice with high Serum Bilirubin level and high levels of SGPT and SGOT. Prothrombin time was also increased. It is mentioned in literature that SGPT and SGOT levels remain elevated in Hepatitis. Maternal mortality in cases of acute liver failure or hepatitis of unknown etiology during pregnancy is exceptionally high, often ranging between 15% and over 40%, primarily driven by rapid progression to fulminant hepatic failure (FHF). The risk of mortality is increased in last trimester, where physiological and immunological changes accelerate severity of disease. It may have to be treated for longer duration for complete recovery. There was definite risk to the present case with the risk of Acute Hepatic failure and also foetal loss/ miscarriage or preterm delivery and high perinatal mortality to the tune of 20-40%.^[9] The case being of unknown aetiology of Hepatitis, there are no guidelines spelt out to treat it. The treating Obstetrician and Physician had no clue to treat condition of the present case. Supportive treatment offered was not effective in improving the liver function. Case was referred to Ayurved and was successfully treated using basic Ayurvedic principles.

Though Modern Medicine specialists were unaware of the treatment of Hepatitis of unknown origin, in Ayurved concepts of Kamla (Hepatitis) have been clearly spelt out. As per Charak Samhita, person affected by Pandurog (Anemia) or Pittaj rog, if consumes

Apathyakar Aahar, his Pitta dosha gets vitiated and gives rise to symptoms of Kamla. Charak Samhita describes the specific features and skin discoloration of Kamala (jaundice) when it progresses from untreated Pandu (anemia) in following Shloka.^[10]

Haridranetra Sa Bhrusham Haridratwangankhananah I
Raktapeetshakrunmutro Bhekvarno Hatendriyah II
Charak Chikitsa 16/35

Dahavipak daurbalya sadana ruchikarshitah I

Kamla Bahupittaisha Koshtashakha ashraya Mata II
Charak Chikitsa 16/36

Kamla affects various organs causing Balakshaya (weakening strength/ metabolism).

Hetu/ Causes:-The said patient before the pregnancy ensued, used to consume Pani-Puri and Ice-cream daily. She had habit of Divaswap (sleeping at day time). This Apathyakar Aahar-Vihar aggravated Pitta-Kapha dosha and developed Ras-Rakta dusti.

Kamla is Pitta pradhan vyadhi but in this patient, due to reasons mentioned above, Sam Ras-Rakta dusti occurred. In this situation Tivra Pachan and Virechan is required but she being pregnant, it was not advisable to her, hence she was administered Mrudu Pachan, Virechan and Bruhan therapy. She came to us at the end of first trimester.

As patient complained of nausea and vomiting, we treated it by Tab Kamdudha and Tab Suvarna Sutshakhar for a period of 15 days. Kamdudha vati is an Ayurvedic mineral herbal formulation traditionally used to balance the pitta dosha and reduce hyperacidity.^[11] Suvarna Sutshakhar, a classical Ayurvedic herbo-mineral medicine containing purified gold (Suvarna Bhasma) that is used primarily to treat severe hyperacidity, acid reflux, and pitta-dominant conditions like nausea.^[12] These complaints subsided within 2 weeks.

Phaltrik kadha/Kashay was administered primarily to support liver health and address condition like jaundice and anemia.^[13] Punarnavadi Kashayam is traditionally used to support kidney and liver.^[14] Patient developed

urinary tract infection and Punarnavadi Kashayam was useful in treating urinary tract infection and it supported liver function, too. Chandraprabha Vati is a traditional Ayurvedic herbal and mineral tablet used mainly to support urinary tract health, metabolism, and reproductive wellness.^[15] Gokshuradi guggul and Sookshma triphala are traditionally used to treat U.T.I. and along with Chandraprabha vati, were proved to be useful in treating U.T.I. successfully, within a period of 2 weeks.

Madhumalini Vasant Vati is a traditional Ayurvedic herbo-mineral medicine used to boost immunity, support metabolism, and nourish tissues.^[16] Usually in first trimester, Laghumalini vasant is administered and in second trimester, Madhumalini vasant is administered. In last trimester, Suvarnamalini vasant is traditionally used.



Fig. 1 Newborn baby.

To continue the pregnancy normally, Garbhapal Ras was administered. Garbhapal Ras is a traditional Ayurvedic herbo-mineral tablet formulation used to support maternal health, manage minor pregnancy-related ailments, and nourish the foetus.^[17] She was continued with Garbhapal Ras throughout the pregnancy.

There is no relapse of Hepatitis after 4 years of follow up. The Child is also very healthy and active as seen in the photograph (Fig. 2).

Conclusion:-This study emphasized that when there were no clear guidelines from Modern medicine to manage Hepatitis of unknown aetiology in pregnancy; Ayurved stood ahead with its basic principles and was successful in managing this serious case. Ayurved has promising role in managing severe Hepatitis of unknown origin.



Fig.2 Healthy baby 4 year old.

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