

## MANAGEMENT OF FATTY LIVER WITH PARTIAL CIRRHOSIS THROUGH HERBAL FORMULATION: A CASE REPORT

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### ABSTRACT

This case involves a 42-year-old male who presented with abdominal pain and a sense of tightness, persisting for many days. He also experienced radiating back pain and discomfort. Investigation suggested condition of fatty liver with partial cirrhosis. Tests showed abnormalities in fasting blood glucose, total cholesterol level, low-density lipoprotein and triglycerides. Overall evaluation confirmed a diagnosis of fatty liver. Patient received herbal formulation "Toxifree syrup" for 03 months twice daily. The finding of study reaffirms the efficacy of herbal formulation in treating such conditions. This case report highlights ability of herbal formulation to deliver significant result without any side effects.

**KEYWORDS:** Liver, Fatty, Cirrhosis, Herbal, Toxifree Syrup.

### INTRODUCTION

Fatty liver is characterized by the accumulation of fats within liver cells; fatty liver can be accompanied by hepatic inflammation and liver cirrhosis. The potential pathological events behind fatty liver are depicted in Figure 1.<sup>[1,2]</sup>

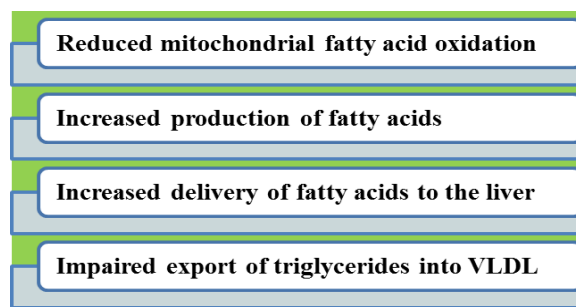


Figure 1: Pathological events behind fatty liver.

In nonalcoholic fatty liver disease a pro-coagulant imbalance may lead cirrhosis, marked by decreased protein C, which may increase the risk of cardiovascular disease and liver fibrosis. Reduced leptin action, contributes to fat buildup in the liver. In alcoholic liver serum leptin levels are independently associated with the severity of condition. Fatty liver often linked with metabolic syndrome; like diabetes and obesity, etc. Factors such as medications, alcohol and nutritional

issues, etc. also contribute to the development of fatty liver.<sup>[1-3]</sup>

Nonalcoholic fatty liver disease typically progresses through four stages

1. **Steatosis:** A benign accumulation of fat in liver cells.
2. **Steatohepatitis:** Liver becomes inflamed.
3. **Fibrosis:** Prolonged inflammation leads to scar formation around the liver.
4. **Cirrhosis:** Long-standing inflammation results shrunken and scarred liver.

In Ayurveda, fatty liver is linked to imbalances in *Pitta* and *Kapha Dosha*, excess fat accumulation in the liver signifies an aggravated *Kapha*, disrupting the normal metabolism of fats and *Dhatu*s. The development of fatty liver can be attributed to the accumulation of *Ama* and weakened *Agni*. This *Mandagni* results incomplete digestion, causing fat deposition, *Kapha-Vridhhi* also contributes to fat accumulation in the liver. Disturbed *Pitta* affects liver's normal functions and alters physiology of fat metabolism leading to the fatty liver.<sup>[4-6]</sup>

Symptoms include *Agnimandya*, *Alasya*, *Udarashoola*, *Aruchi*, *Netradaha* and *Klama*. Ayurvedic treatment includes *Panchakarma*, Herbal remedies like; *Bhumyamalaki*, *Kutki*, *Kalmegh* and *Guggulu*. Dietary

adjustment includes *Kapha* pacifying diet, easily digestible foods and avoidance of alcohol. *Rasayana* therapy includes herbs like *Amalaki* and *Haritaki* to

support the liver and combat oxidative stress.<sup>[6-8]</sup> The suggested therapeutic regimen for the management of fatty liver is mentioned in **Table 1**.

**Table 1: Suggested therapeutic regimen for the management of fatty liver.**

Category	Descriptions
Dietary Changes	Emphasize whole foods (Fruits, Vegetables, Whole grains, Lean proteins)
	Include olive oil, avocados, nuts, seeds, and omega-3-rich foods (Fish, Flaxseeds)
	Limit sugary drinks, added sugars, and refined carbohydrates (e.g., white bread, pasta)
	Avoid fried foods, processed snacks, and fatty meats
	Eat more vegetables, fruits, legumes, and whole grains
Natural Remedies & Herbs	Turmeric: Has anti-inflammatory and antioxidant effects
	Licorice Root: Reduces liver enzymes and inflammation
	Garlic: Reduces body fat and supports liver function

**CASE REPORT**

Patient (42-year-old male) reported with abdominal pain radiating to the lumbar region persisted from past few days, accompanied by abdominal tightness and discomfort. The key symptoms included abdominal pain, back pain and anorexia.

**Clinical findings**

The patient exhibited central obesity, weighing 76 kg with a height of 165 cm. His viral hepatitis returned negative and fasting blood sugar level was 124 mg/dl, with postprandial blood sugar (PPBS) at 160 mg/dl. The liver function test showed a serum total bilirubin of 1.0 mg/dl, with direct bilirubin at 0.4 mg/dl. A sonography report revealed increased echogenicity and mild hepatomegaly, while a liver electrography indicated a midline shift.

**Ayurvedic diagnosis**

- ✓ The patient's *Dosha Vidha Pariksha* indicated a *Kapha-Pitta Prakriti* with *Kapha Vikruti*.
- ✓ *Madhyama Sara* and *Madhyama Samhanana*
- ✓ Low appetite
- ✓ Moderate *Vyayama Shakti*
- ✓ *Krura Koshtha*
- ✓ *Kapha-Pitta Nadi*
- ✓ Normal urine and stool output
- ✓ *Ama* coated *Jivha* and predominantly *Kapha* characteristics in *Shabda, Sparsha* and *Drika*.
- ✓ General appearance suggested mild central obesity.

**Treatment protocol**

The general investigation and clinical finding suggested case of fatty liver, therefore herbal formulation possesses digestive, anti-oxidant and anti-inflammatory properties is considered best for present case. Thus “Toxifree syrup” was prescribed for managing present case of fatty liver.

- **Medication:** The patient was prescribed "*Toxifree syrup*," which contains a blend of *Bhringraj, Daruharida, Coriander, Cinnamon, Tulsi, Punarnava, Yastimadhu, Giloy, Harad, Senna, Methi, Nagarmoth, Triphala, Khadira, Draksha, Aloe Vera, Jatamansi, Bhuiamla, Carrot, Brahmi, Nagkesar, Amla, Vach, Tumburu* and *Jaiphal*.
- **Dosage:** 10 ml twice daily.
- **Duration:** Three months.
- **Follow up:** 30 days

**Dietary & Other advices**

- ✚ Avoid spicy and oily foods.
- ✚ Refrain from consuming preserved and junk foods.
- ✚ Limit intake of heavy foods.
- ✚ Avoid alcohol.
- ✚ Maintain a regular sleeping and dietary pattern.
- ✚ Engage in mild exercise and physical activity.

**RESULT**

In this case, the treatment duration lasted for three month, with a follow-up period of 30 days. The improvement in symptoms is outlined in **Table 2**.

**Table 2: Effect of therapy on symptoms of fatty liver disease.**

S. No.	Status of symptoms during the therapy	At Start of Therapy (0 days)	First Follow-up (30 days)	Second Follow-up (60 days)	Third (Final) Follow-up (90 days)
1	<i>Fatigue</i>	High	Moderate	Low	Absent
2	<i>Abdominal Discomfort</i>	Significant	Moderate	Moderate	Mild
3	<i>Appetite</i>	Reduced	Low	Normal	Normal
4	<i>Abdomen Heaviness</i>	High	Moderate	Mild	Absent
5	<i>Liver Enzyme Levels (ALT/AST)</i>	Elevated	Slightly Reduced	Significantly Reduced	Normal

The patient's symptoms of fatigue, abdominal discomfort, and feeling of heaviness improved steadily

with the continuation of therapy. Appetite also normalized over time, and liver enzyme levels returned

to the normal range. The poly-herbal formulation (Toxifree syrup) was effective in achieving the desired results due to its hepato-protective and rejuvenating properties.

### DISCUSSION

The patient presented with symptoms of fatty liver disease, including fatigue, abdominal discomfort, and a history of consuming oily, fried, and junk foods, which are common contributing factors. Poor dietary habits, especially the intake of fatty and processed foods, were identified as key causes of liver dysfunction and fat accumulation in the liver.

The treatment was focused on improving liver function and promoting fat metabolism. The administration of Toxifree syrup, which contains hepato-protective and anti-inflammatory herbs, contributed to the resolution of symptoms. The *Deepana*, *Pachana* and *Yakrit-Roghar* properties of the formulation played a crucial role in managing the condition.<sup>[5,8]</sup>

In Ayurveda, fatty liver disease is associated with *Kapha Dosha* aggravation and impaired *Agni*, leading to the accumulation of *Ama*. Toxifree syrup, with its *Vata-Kapha* balancing and *Pitta*-pacifying properties, helped to stimulate digestion, reduced fat accumulation in the liver, and restore balance.<sup>[8-10]</sup>

A strict dietary regimen was recommended to prevent further liver damage and to optimize the therapeutic effects of the herbal formulation. The dietary advice focused on avoiding heavy, oily, and processed foods, as well as alcohol, all of which are known to exacerbate fatty liver disease. Mild exercise was also advised to support liver function and fat metabolism.<sup>[6]</sup>

### CONCLUSION

Ayurveda offers a range of effective herbs and formulations for the management of fatty liver disease. In this case, Toxifree syrup, combined with dietary restrictions, led to significant improvement in symptoms and liver function. The herbal formulation showed promising results in reducing liver inflammation and fat accumulation, indicating successful management of the condition through herbal formulation.

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