**EFFECTS OF VIRECHAN IN NON-ALCOHOLIC FATTY LIVER DISEASES - A CASE STUDY**

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**ABSTRACT**

Non-alcoholic Fatty Liver Diseases (NAFLD) is an emerging as an important cause of chronic liver disease in India. Epidemiological studies suggest prevalence of NAFLD is around 9% to 32% of general population in India with higher prevalence in those with overweight or obesity. Clinico-pathological study shows that NAFLD is an important case of unexplained rise in hepatic transaminase, cryptogenic cirrhosis and cryptogenic hepatocellular carcinoma in Indian patients. Most patients of NAFLD are asymptomatic; most often follows incidental detection of raised liver enzymes or fatty liver on ultrasound. There is no direct reference of NAFLD in Ayurvedic classics. It can be correlated with Yakrit Vikar with similarities in sign and symptoms. Currently there is no approved therapy for NAFLD. The proper dosing, duration of treatment, safety and tolerability of treatment is still evolving. But Ayurvedic medication and therapies like Virechan are popularized for liver diseases day by day. Virechan is considering as a safety treatment for Yakrit Vikar, so here in this case Virechan was administered to the patient as per guideline. The patient was followed up to one month to observe in serum AST, ALT and Alkaline phosphate level and symptomatic development.

**Keywords:** Fatty Liver Disease, Ayurveda, Yakrit Vikar, Virechan

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**INTRODUCTION**

Non-alcoholic Fatty Liver Disease (NAFLD) is a condition that resembles alcohol induced liver disease but occurs in patients who are not drunker. Men and Women both are equally affected and there are strong association with obesity and dyslipidemia. It is reported that 9% to 32% of adult population of India are affected by NAFLD, among them 90% are obese (BMI > 25 kg/m²). Urbanization and associated changes, such as sedentary life style and fat rich diet and a higher inherited tendency for Type-2 DM makes Indian more prone for NAFLD. Several mechanisms have been postulated to explain the pathogenesis of NAFLD. The complex interaction of various factors leads to insulin resistance and serum & liver iron over load and oxidative stress that leads to necro-inflammation and fibrosis. Central obesity is more strongly associated with NAFLD. In severe obese people, the risk of liver disease increase progressively with metabolic syndrome.
Most patients with NAFLD are asymptomatic; diagnosis most often follows incidental detection of raised liver enzymes or fatty liver on ultrasound. The abnormalities are usually picked up during evaluation of dyspepsia, malaise or fatigue. A smaller fraction of patients may experience symptoms of liver disease may develop pruritus, anorexia and nausea. It can be present with normal or fluctuating aspartate Aminotransferase (AST) and alanine aminotransferase (ALT). In general ALT is higher than AST. Ultra sound may show fatty changes of liver with mild hepatomegaly. There is no such textual reference of NAFLD but it can be correlated with Yakrit Vikar as similarities in sign and symptoms. There is no effective management is suggested in modern medicines for NAFLD but Ayurvedic drugs with Sodhan Therapy like Virechan proves to be effective in the management of this disease.

**MATERIAL AND METHODS**

A patient with symptoms of pain in right hypochondriac region with dyspepsia, malaise and purities was selected and advice for routine blood examination, Liver function test and ultra sound and diagnosed as NAFLD. Virechan was administered as per textual reference by examining Agni and Kostha of the patient. Prior to Virechan, snehapana is given for 7 days followed by Abhyanga and Nadisweda. After Virechan the patient is advised to take Samsarjan Krama for 7 days. After the process the patient was kept under observation for one month and again advice for Liver function test and ultra sonography.

**Sneha:-** Panchatikta Ghruta- for 7 days  
**Virechan Yoga:-** Trivrit, Aragbadha, Haritaki, Katuki, Caster oil, Gomutra, Saindhava lavana and Madhu

**RESULT**

The result was evaluated by examination and laboratory investigation before and after treatment. The Body weight, BMI, Serum AST, ALT and Alkaline Phosphate are evaluated before and after the treatment which are given in table below.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Before treatment</th>
<th>After Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (in Kg)</td>
<td>75</td>
<td>70</td>
</tr>
<tr>
<td>BMI (in Kg/M²)</td>
<td>27.5</td>
<td>25.7</td>
</tr>
<tr>
<td>AST</td>
<td>42.5 U/L</td>
<td>29.7 U/L</td>
</tr>
<tr>
<td>ALT</td>
<td>49.8 U/L</td>
<td>34 U/L</td>
</tr>
<tr>
<td>Alkaline Phosphate</td>
<td>15.6 KA/Unit</td>
<td>12.4 KA/Unit</td>
</tr>
<tr>
<td>Hepatomegaly</td>
<td>15.2 cm</td>
<td>14.7 cm</td>
</tr>
</tbody>
</table>

**DISCUSSION**

Non-alcoholic Fatty Liver Disease (NAFLD) is a clinical condition which needs to be treated. A patient may land up with the complication like liver cirrhosis and hepatocellular carcinoma. There is no effective treatment in modern medicines. Since there is no direct reference in Ayurvedic text but it may be correlated with Yakrit Vikar. Yakrit Vikar are mainly arise due to vitiation of Pitta dosha, so Virechan therapy is very much effective in this condition as Virechan is the best purificative measures for Pitta.
Virechan improves the condition of the patient and also give remarkable change in Serum AST, ALT and Alkaline Phosphate level. It also decreases the enlargement of liver with correction of fatty changes.

**CONCLUSION**

- It is an important cause of chronic liver disease and should be treated in early condition.
- Since there is no specific remedy in modern medicine and Ayurveda proves to be best for management by purification like Virechan.
- By Virechan Krama one can not only decrease the serum AST, ALT and Alkaline phosphate level but also enhance the liver function and general health condition of the patient.
- During course of treatment no side effect or any complications were seen, patient very well tolerated to the treatment.
- Virechan in Non-alcoholic fatty liver disease is a topic of research and more studies should be conducted to reach and to make a proper protocol for the disease modalities and help to the mankind with our ancient science.

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