Evaluation of clinical effect of *Panchtikta ghrita* in viral hepatitis

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HBV infection causes more severe form of illness that includes acute Hepatitis B, chronic hepatitis, progression to cirrhosis, fulminant hepatitis and development to hepatocellular carcinoma. Hepatitis B is caused by HBV infection. An open clinical trial was done in 20 Hep-B positive jaundice patients. *Panchtikta ghrita* was given in proper doses to all patients registered for trial. All the liver function tests along with clinical symptoms were recorded and assessed before and after treatment. Treatment was given for 3 weeks. The result was analyzed using standard statistical data and showed the encouraging improvement. The details have been described in the paper.

**Keywords**: Hepatitis B, Jaundice, *Panchtikta ghrita*, Kaml

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Hepatitis can be defined as the constellation of symptoms and signs resulting from hepatic inflammation and hepatic cell necrosis. If the insult is acute and occurs in a previously asymptomatic individual, the term acute hepatitis can be applied. The most common causes of acute hepatitis are viruses, toxins, and alcohol. Occasionally other disease entities such as Wilson's disease, leukemias, and lymphomas with acute infiltration of the liver may give rise to a clinical picture of acute hepatitis. Viruses, however, are the major etiologic agents of acute liver injury. Systemic infection with several viruses results in hepatic inflammation and cell death. Viruses that cause hepatitis have been classified as hepatitis A (HAV), B (HBV), C (HCV), delta (HDV), and E (HEV). However, in some individuals, infection with the Epstein-Barr virus (EBV) or cytomegalovirus (CMV) also results in acute hepatitis1.

HBV is now recognized as one of the family of animal viruses, hepatitis virus and is classified as hepapdna virus type-12. After a person is infected with HBV the first virological marker detectable in serum is HbsAg. Circulating HbsAg precede elevation of serum aminotransferase activity and clinical symptoms and remains detectable during the entire icteric or symptomatic phase of acute Hep-B. HbsAg becomes undetectable 1-2 months after the onset of jaundice and rarely persist beyond 6 months3.

**Materials and methods**

An open clinical trial was designed to study the effect of *Panchtikta ghrita* to reduce the severity and complications of hepatitis B induced jaundice. For this study 20 patients were selected from Kaychikitsa ward, S S Hospital, IMS, BHU. After taking consent above mentioned drug, i.e. *Panchtikta ghrita* in dose of 10 ml bid are prescribed for 3 weeks to all patients. The changes in clinical symptoms along with liver function tests were recorded and assessed before and after treatment.

Selection of patients is based on inclusion criteria like, diagnosed patients of HbsAg positive, patients with signs and symptoms of hepatitis induced jaundice, male and female patients of age group 20-60 and newly diagnosed patients of Hbs Ag. Exclusion criteria is based on patients positive for other types of hepatitis viruses, patients associated with other complications and known critical conditions like, tuberculosis, AIDS, diabetes mellitus and hypertension, age below 20 yrs and above 60 yrs and patients unwilling to participate.

A total of 20 cases were studied, in which 14 were male patients and 6 females. In clinical features4,5,6, icterus was observed in 100% cases, hepatomegaly in 70 %, Splenomegal in 10 % cases, Ascites in 20 % cases, where Anorexia, Nausea & Vomiting is noted

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in 80% cases, and Fever is noted in 30% Cases as shown in Table 1.

_Panchtikta ghrita_ is described in _Bhaïsajya Ratnavali_ under _kustha chikitsa_.

**Contents of Drug**

- **Nimb** Azadirachta indica
- **Patola** Tricosanthes dioica
- **Vyaghri** Solanum suratense
- **Guduchi** Tinospora cardifolia
- **Vasaka** Adhatoda vasica
- **Haritaki** Terminalia chebula
- **Bibhitaki** Terminalia bellerica
- **Amlaki** Emblica officinalis

Assessment is mainly based on changes in biochemical laboratory investigations, i.e. LFT along with change in grading of clinical symptoms. All investigations are performed and recorded before and after 21 day treatment.

The biochemical investigations revealed are SGOT, SGPT, serum total protein, serum total bilirubin, alkaline phosphatase and prothrombin time.

**Observations and results**

After 21 day treatment with _Panchtikta ghrita_ in dose of 10 ml bid, the changes in clinical symptoms along with liver function tests were recorded before and after treatment. On comparing statistically, results are very much encouraging as shown in following Tables 2 & 3.

**Discussion**

The present study was aimed to validate efficacy of _Panchtikta ghrita_ in patients suffering from jaundice due to Hep-B. Acute Hep-B causes severe illness if not treated properly and leads to chronic hepatitis and liver cirrhosis. There was no such medicines in Allopathy system to reduce the severity of acute hepatitis (except antiviral drugs), but in _Ayurvedic_ classics there are much more drugs available for reducing the severity of acute hepatitis. The _Ayurvedic_ pharmacopoeia have a rich heritage of herbal medicines for treating jaundice (_kamala_). Therefore, in present study only _Panchtikta ghrita_ is selected and it was observed that it is much more efficacious in reducing the severity of acute hepatitis.

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**Table 1—Clinical features of Hepatitis B positive jaundice patients (n=20)**

<table>
<thead>
<tr>
<th>Signs &amp; symptoms</th>
<th>Number of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Icterus</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>Anorexia</td>
<td>16</td>
<td>80%</td>
</tr>
<tr>
<td>Fever</td>
<td>6</td>
<td>30%</td>
</tr>
<tr>
<td>Hepatomegaly</td>
<td>14</td>
<td>70%</td>
</tr>
<tr>
<td>Splenomegaly</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>Ascites</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>Nausea &amp; vomiting</td>
<td>16</td>
<td>80%</td>
</tr>
</tbody>
</table>

*Grading of clinical features: - All clinical features are recorded from 0 to 3 grades
- 0 - No Symptom
- 1 - Mild
- 2 - Moderate
- 3 - Severe

**Table 2—Effect of trial drug on clinical features**

<table>
<thead>
<tr>
<th>Signs &amp; symptoms</th>
<th>Before treatment (Mean ± SD)</th>
<th>After treatment (Mean ± S.D.)</th>
<th>% reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Icterus</td>
<td>1.85 ± 0.812</td>
<td>0.3 ± 0.571</td>
<td>98.37%</td>
</tr>
<tr>
<td>Anorexia</td>
<td>1.5 ± 1.051</td>
<td>0.25 ± 0.550</td>
<td>83.3%</td>
</tr>
<tr>
<td>Fever</td>
<td>0.55 ± 0.944</td>
<td>0.1 ± 0.307</td>
<td>81.8%</td>
</tr>
<tr>
<td>Hepatomegaly</td>
<td>1.2 ± 1.005</td>
<td>0.1 ± 0.307</td>
<td>91.6%</td>
</tr>
<tr>
<td>Splenomegaly</td>
<td>0.15 ± 0.489</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Ascites</td>
<td>0.35 ± 0.812</td>
<td>0.05 ± 0.223</td>
<td>85.7%</td>
</tr>
<tr>
<td>Nausea &amp; vomiting</td>
<td>1.15 ± 0.875</td>
<td>0.05 ± 0.875</td>
<td>95.6%</td>
</tr>
</tbody>
</table>

*Grading of clinical features: - All clinical features are recorded from 0 to 3 grades
- 0 - No Symptom
- 1 - Mild
- 2 - Moderate
- 3 - Severe

**Table 3—Effect of trial drug on biochemical parameters (i.e. LFT’s)**

<table>
<thead>
<tr>
<th>Investigations</th>
<th>BT* (Mean±SD)</th>
<th>AT* (Mean±SD)</th>
<th>‘t’ TEST</th>
<th>‘p’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGOT</td>
<td>358.75±144.91</td>
<td>75.9±39.19</td>
<td>9.17</td>
<td>p &lt; 0.001 highly significant</td>
</tr>
<tr>
<td>SGPT</td>
<td>412.5±168.27</td>
<td>101.15±53.94</td>
<td>9.31</td>
<td>p &lt; 0.001 highly significant</td>
</tr>
<tr>
<td>Total Bilirubin</td>
<td>25.4±5.08</td>
<td>3.46±0.48</td>
<td>7.79</td>
<td>p &lt; 0.001 highly significant</td>
</tr>
<tr>
<td>Total Protein</td>
<td>6.72±0.77</td>
<td>6.06±0.34</td>
<td>0.69</td>
<td>p &gt; 0.1 not significant</td>
</tr>
<tr>
<td>Alk. Phosphatase</td>
<td>326.55±143.72</td>
<td>106.8±38.69</td>
<td>6.34</td>
<td>p &lt; 0.001 highly significant</td>
</tr>
<tr>
<td>Prothrombin time</td>
<td>15.75±1.91</td>
<td>14.6±0.94</td>
<td>3.30</td>
<td>p &lt; 0.001 highly significant</td>
</tr>
</tbody>
</table>

* BT = Before treatment
* AT = After treatment
Conclusion

HBV causes much of the morbidity and mortality from acute and chronic liver disease worldwide. In addition to chronic liver disease, it is also implicated in the pathogenesis of hepato-cellular carcinoma. It may be fatal if not treated properly. Following conclusions have been drawn from the present study:

- **Panchtikta ghrita** is although described under *Kusth rogadhir* but it is as such efficacious in treating hepatitis induced jaundice (*Kamala*) also, because *Kusth* and *Kamala* both are *Pitta* and *Rakta pradhan vyadh* and *Tikta dravyas* are the best for *Pitta rogas*.

- On the other way, according to *Charak*, the best treatment of *Pitta* is *virechana* and *Panchtikta ghrita* does this function also.

- On close observations of results, it is observed that *Panchtikta ghrita* has a very much significant action on liver enzymes. It lowers all the liver enzymes significantly without producing any adverse effect. So, it can be conclude that *Panchtikta ghrita* can be used as a hepatoprotective drug in patients of hepatitis for better improvement.

References