CASE REPORT

Siddha Management of Kamalai – A Case Report
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ABSTRACT
Kamalai which is also called as Manjal noi in Siddha literature is a disease caused by increase of Azhal kutram in body. The case study deals with a pediatric patient presented with the symptoms of Kamalai and the En vagai thervu diagnosis of Siddha system of medicine also confirmed the diagnosis arrived by considering the clinical history of patient. Siddha drugs that are indicated for Azhal kutra noigal and specific medicine for Kamalai were prescribed to the patient. The patient got relieved from the symptoms of Kamalai on third day of treatment. The parameters of Liver Function Test also came to normal range on 14th day of treatment with drastic reduction in serum bilirubin level values on 3rd day of the treatment. As Kamalai is a comparable with acute viral hepatitis, Siddha treatment for Kamalai may be followed for the treatment of acute viral hepatitis after evaluating the efficiency of treatment with large scale clinical studies.

KEY WORDS
Acute viral hepatitis, Kamalai, Siddha medicine

1.0 INTRODUCTION
Kamalai is a disease mentioned in the Siddha literature characterized by pallor, yellowish discoloration of conjunctiva, tongue, lips, Yellow coloured urine and in later stages the colour of urine changes into red, Loss of weight, nausea, vomiting, indigestion, fatigue and motion sickness. Kamalai in Siddha can be compared with acute viral hepatitis.

Viral hepatitis is a great challenge to public health management in Indian scenario. Wide scale exposure to HAV in childhood leads to 90% to 100% seropositivity by adolescence. Although the mortality associated with Hepatitis A virus is low, the treatment requires several days or weeks of hospitalization and cause absenteeism from school. It needs 2 month duration for complete recovery from the symptoms of the disease.

2.0 CASE REPORT
An 11-year-old Female child from nearby slum area visited Siddha Clinical Research Unit (SCRU - CCRS) OPD, Bengaluru on 01/05/2018 with symptoms of fatigue, pain in abdomen, loss of appetite, nausea, yellowish discoloration of urine, constipation with clay coloured stools for four days. On examination, yellowish discoloration of sclera and nail beds, palpable liver with tenderness was observed. Naadi examination revealed Azhal Aiya naadi. Heart rate was 72 beats / minute, pulse rate – 72 beats/ minute.

The history of present illness first started with fever for 4 days since 24/04/2018, pain in abdomen, nausea, vomiting and undertook treatment with nearby general physician for fever, the patient’s parents were unaware of the drug prescribed. The fever subsided on second day of the treatment but the patient
experienced nausea, vomiting, constipation, myalgia. As the parents noticed yellowish discoloration of sclera on 28/04/2018, they reported to the general physician. The physician prescribed blood investigation to rule out the cause of jaundice. The biochemical parameters and urine examination reports revealed hyperbilirubinemia, many fold elevation of transaminases, Albuminuria and hyperbilirubinuria. As the report suggested the probability of viral hepatitis, the physician referred the patient to Siddha Clinical Research Unit, Bengaluru. 

On visit to SCRU, Bengaluru, The patient was diagnosed as a case of Kamalai after the physical examination by en vagai thervu methods (diagnostic method followed in Siddha system of medicine) and after observing the clinical history, biochemical analysis and urine examination reports. The patient was advised to take HAV ELISA test, but the patient didn't follow that advice, as patient was very poor to bear the cost of blood test.

The following Siddha medicines were prescribed and the patient was advised to come for next review after 3 days, on 04/05/2018.

i. Elathi choornam -1 gram + Vedi annabedhi chendooram-50 mg + Kungiliya parpam - 50 mg + Silasithu parpam – 50 mg -2 times a day with butter milk.

ii. Keezhanelli tablet – 2 Tablets, 3 times a day with butter milk

iii. Santha chandrodayam mathirai – At night after food with honey.

The patient was advised to take vegetarian diet and to avoid oil, milk and diet rich in fat content. As diet restriction for Santha chandrodayam mathirai, the patient was advised to avoid bitter gourd and to restrict tamarind.

On 04/05/2018 when the patient came for review, physical examination revealed that there was no yellowish discoloration of sclera. On Palpation there was no tenderness over the liver region. The patient also felt relieved from the symptoms of myalgia, vomiting, nausea, constipation and pain in the abdomen. The patient observed mild laxative effect of medication with change in the colour of stools from the first day of treatment. Laboratory investigation also revealed three-fold decreases in Serum bilirubin level. Same medicines were repeated and the patient was advised to come for next review on 07/05/2018. The patient reported complete recovery from all the symptoms on her visit on 07/05/2018. Santha chandrodayam mathirai was also relaxed. On the next visit of patient on 14/05/2018, naadi was found to be Vali azhal, biochemical investigations were prescribed and it revealed the complete recovery of patient with all parameters of Liver Function Test within normal range. Santha chandrodayam mathirai was discontinued and the patient was advised to take the following medications for 1 month. Diet restrictions were completely relaxed.

i. Elathi choornam -1 gram + Vedi annabedhi chendooram-50 mg + Kungiliya parpam - 50 mg + Silasithu parpam – 50 mg -2 times a day with butter milk.

ii. Keezhanelli tablet – 2 Tablets, 3 times a day with butter milk
### Table 1. Siddha drugs prescribed and its ingredients

<table>
<thead>
<tr>
<th>SN</th>
<th>Name of the drug</th>
<th>Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Santha Chandrodhayam</td>
<td>Poritha Vengaram (Dehydrated Borax), Suthi seitha Pooram (Purified Calomel), Manjal podi (Turmeric powder), Elumicham pazha charu (Lime Juice).</td>
</tr>
<tr>
<td>2.</td>
<td>Keezhanelli Tablet</td>
<td>Keezhanelli (Phyllanthus niruri powder).</td>
</tr>
<tr>
<td>3.</td>
<td>Vedi Annabedi Chendooram</td>
<td>Suthi seitha Annabedhi (Purified Green viterol), Vediuppu (Pottasium nitrate), Elumicham pazha charu (Lime juice).</td>
</tr>
<tr>
<td>4.</td>
<td>Elathi Choornam</td>
<td>Lavangam (Syzygium aromaticum flower buds), Milagu (Piper nigrum fruits), Sirunagapoo (Mesua ferrea flower buds), Thaleesam (Taxus buccata leaves), Kookaineeru (Arrow root starch), Chukku (Dried rhizome of Zingiber officinalis), Elam (Eletteria cardomam fruits), Sarkarai (Sugar).</td>
</tr>
<tr>
<td>5.</td>
<td>Kungiliya Parpam</td>
<td>Vellai Kungiliyam (Sal tree resin), Ilaneer (Tender coconut water).</td>
</tr>
<tr>
<td>6.</td>
<td>Silasithu Parpam</td>
<td>Suthitha Karpoora silasithu (Purified gypsum), Siru seruppadai charu (Coldenia procumbens L. leaf juice)</td>
</tr>
</tbody>
</table>

### Table 2. Prognosis observed in biochemical parameters and urine examination

<table>
<thead>
<tr>
<th>SN</th>
<th>Investigations</th>
<th>28/04/2018</th>
<th>04/05/2018</th>
<th>14/05/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Serum Bilirubin (Total)</td>
<td>5.9 mg/dl</td>
<td>1.6 mg/dl</td>
<td>1.2 mg/dl</td>
</tr>
<tr>
<td>2</td>
<td>Serum Bilirubin (Direct)</td>
<td>3.0 mg/dl</td>
<td>0.5 mg/dl</td>
<td>0.4 mg/dl</td>
</tr>
<tr>
<td>3</td>
<td>Serum Bilirubin (Indirect)</td>
<td>2.9 mg/dl</td>
<td>1.1 mg/dl</td>
<td>0.8 mg/dl</td>
</tr>
<tr>
<td>4</td>
<td>AST</td>
<td>1504 U/L</td>
<td>-</td>
<td>32 U/L</td>
</tr>
<tr>
<td>5</td>
<td>ALT</td>
<td>420 U/L</td>
<td>-</td>
<td>29 U/L</td>
</tr>
<tr>
<td>6</td>
<td>Alkaline Phosphatase</td>
<td>1138 U/L</td>
<td>-</td>
<td>197 U/L</td>
</tr>
<tr>
<td>7</td>
<td>GGT</td>
<td>112 IU/L</td>
<td>-</td>
<td>29 IU/L</td>
</tr>
<tr>
<td>8</td>
<td>Total Protein</td>
<td>7.8 gm/dl</td>
<td>-</td>
<td>8.5 gm/dl</td>
</tr>
<tr>
<td>9</td>
<td>Serum Albumin</td>
<td>4.2 gm/dl</td>
<td>-</td>
<td>4.7 gm/dl</td>
</tr>
<tr>
<td>10</td>
<td>Serum Globulin</td>
<td>3.6 gm/dl</td>
<td>-</td>
<td>3.8 gm/dl</td>
</tr>
<tr>
<td>11</td>
<td>Albumin/Globulin Ratio</td>
<td>1.1 :1</td>
<td>-</td>
<td>1.2:1</td>
</tr>
<tr>
<td>12</td>
<td>Urine Examination</td>
<td>- Dark yellow, - Colour – Light yellow, Albumin- Absent, Sugar – Absent, Bile salts-nil, Bile pigment-nil, Pus cells- 2-3 cells/hpf, Epithelial cells- 1-2 hpf, RBCs – Not seen</td>
<td>Present (+), - Bile Salt (+), - Bile pigments (+), - Cells – 6-8 cells/hpf, - RBCs = Not seen</td>
<td>+, -</td>
</tr>
</tbody>
</table>
2.1 Time line
24/04/2018 – Patient complained of fever, pain in abdomen, nausea, vomiting.
Biomedical treatment was given by General Physician.
26/04/2018- Fever subsided. Symptoms of nausea, vomiting and pain abdomen were persistent. Constipation and myalgia were present.
28/04/2018- Symptoms of Jaundice with yellowish discoloration of sclera, clay coloured stools, yellowish discoloration of urine were noticed.
29/04/2018- Biochemical investigation report and urine examination report suggested probability of acute viral hepatitis. The patient was referred to SCRU, Bengaluru.
01/05/2018 – The patient visited SCRU, Bengaluru. She was diagnosed as a case of Kamalai with En vagai thervu and Naadi examination. Siddha medicines were prescribed.
02/05/2018 – Patient observed change in colour of stools (Mild yellow coloured), Constipation relieved.
04/05/2018 – Patient felt relieved from myalgia, vomiting, nausea. On examination, no yellowish discoloration of sclera observed. Three fold decreases in serum bilirubin level observed.
07/05/2018 – Patient completely recovered from all the symptoms.
14/05/2018 – Biochemical parameters including transaminases level decreased multifold to the normal range on the 14th day of treatment.

3.0 Discussion
Kamalai is the condition described in Siddha literature characterized by Icterus, Yellowish discoloration of urine, Myalgia, Nausea, vomiting and headache. Kamalai is caused by increase in Azhal kutram and diagnosed by Azhal Aiyam or Azhal Vali naadi. The first step in the line of treatment of Kamalai is to reduce the deranged Azhal to its normal level and prescribing medicines that act as coolants to the body. Santha chandrodayam is the Siddha medicine indicated for Azhal noi in the Siddha literature, Theraiyar vaithiyam.\(^4\) Santha chandrodayam acts by expelling the Pitha neer in faeces. Keezhanelli (Phyllanthus niruri) and Annabedi chendooram are indicated for Kamalai in Siddha literature, Agasthiyar gunavakadam \(^5\) and Siddha vaidya thrattu \(^6\) respectively. Elathi choornam is indicated for all diseases that are caused by increase in Azhal kutram. Kungiliya parpam and Silasithu parpam reduces body heat. As the medicines prescribed reduce the Azhal kutram of the body, the symptoms of Kamalai were also relieved which was evident from the clinical history of the patient after medication.

There was drastic reduction in the parameters of Liver function test. Serum bilirubin level reduced nearer to normal range in just 3 days of treatment and the transaminases level decreased multifold to the normal range on the 14th day of treatment.

Kamalai is comparable with Acute Viral Hepatitis. Even the milder form of symptoms that appears in Jaundice associated with HAV infections, requires several days of hospitalization. As the infection occurs mostly in low income group because of low hygienic living condition, there is a need for treatment that promises faster recovery rate and is economic. The case study proves that prognosis of Kamalai is faster with Siddha line of treatment and the patient got relieved from the symptoms in three days. The biochemical parameters also returned to normal range within 2 weeks. Large scale clinical studies on Kamalai employing Siddha medicines may be conducted for further evaluation of outcome of this case report.

Ethical approval
Consent was obtained from the patient for presenting the case study in journal. Ethical considerations were followed while giving...
treatment to the patient. Care was taken to maintain the anonymity of patient.

Financial support:
Nil

Conflict of interest:
There is no conflict of interest.

References


