Introduction

According to Ayurveda, depending upon Srotasas, diseases are many and Mootrakrichchhra is one among them. It has been said that Doshas being provoked by their respective etiological factors, individually or all together reaches Basti and Mutramarga and begin to compress them on all sides and thus results in Mootrakrichchhra.

Mootrakrichchhra means pain and difficulty while micturition. It is characterized by Saruja, Sadaha and Muhurmuhu mutrapravritti. Vatadidushta Doshas leading to genesis of eight types of Mootrakrichchhra. Pittaja mootrakrichchhra is one of the types of mootrakrichchhra. It is characterized by Saruja, Sadaha and muhurmuhu, Haridra Raktavarna Mutrapravritti. Classics have explained Shamana and Shodhana treatment for the disease, including Vyadhi Pratyanika Chikitsa in the form of Shaman Yogas. Procedures like Parisheka, Avaghaha, Pradehahave also been quoted. Urinary tract infection and its treatment is important because it causes acute morbidity and long term complications like hypertension and chronic renal insufficiency. UTI occurs 3-5% in girls and 1% in boys. In girls it occurs by 5 years of age with peak during infancy. After first UTI 60-80% of girls will develop a second UTI within 18 months. UTI are much more common in uncircumcised boys.

Early identification and diagnosis and prompt treatment is extremely important not only to cure the acute problems but also to prevent long term complications. Current line of treatment of UTI in modern medicine is purely based on antibiotics. It is costly and also have its own well known potential adverse effects.

Hence here a attempt to search a drug which is palliative, effective as well as safe for a children.

Aim And Objectives:

Aim: To evaluate the efficacy of Shringataka Heem in the management of Pittaja Mootrakrichchhra.

Objectives:

1. To study the Mutravaha Strotas and anatomy of renal system.
2. To study Pittaja Mootrakrichchhra and lower U.T.I. in detail.
3. To assess the efficacy of Shringataka Heem in comparision with Gokshura Kashayain relieving Pittaja Mootrakrichchhra.
Materials And Methods

Material: The 60 diagnosed patients attending O.P.D. Of Ayurved Rugnalaya suffering from Pittaja Mootrakrichchhra will be selected randomly, irrespective of their sex, religion & socio-economic status & divided into 2 groups.

Group A -Trial Drug- 30 patients
Group B -Control Drug- 30 patients

Drug

GROUP A- TRIAL DRUG- Shrungataka Heem.

GROUP B – CONTROL DRUG- Gokshura Kashaya.

Drug Review

Shrungataka Heem
Shrungataka heem contain only one drugs that’s shrungataka churna.
Drug- Shrungataka
Latin Name- *Trapantum bispinosa*
Rasa- Madhur, Kashaya.
Virya- Sheet
Vipaka- Madhur
Guna- Gura, Ruksha,
Karma- Pittashamak, Tridoshamak, Mutral, Rochan, Vishtambhi, Vrushya, Balya.

Gokshura Kashaya
Gokshura kashaya contains only Gokshur churna.
Drug- Gokshura
Latin Name- *Tribulus terrestris*
Rasa- Madhur, Tikta.
Virya- Ushna
Vipaka- Madhur
Guna- Gura, Snigdha.
Karma- Balya, Bruhana, Diplina, Kaphakara, Pittahara, vathara, Keshya, Mutrala, Vrushya, Vedanasthapan

Methodology

Preparation of drug- 
TRIAL GROUP“A”-Shrungataka Heem
Shrungataka heem will be prepared in Ayurved Rasashala as described in Sharangdhar Samhita.

CONTROL GROUP “B”-GokshuraKashaya
Gokshura Kashaya will be prepared in Ayurved Rasashalaas described in Sharangdhar Samhita.

Selection Of Patients

Present study will include total 60 diagnosedof Pittaja Mootrakrichchhra from Kaumarabhritya OPD of Ayurved Rugnalaya. That will be divided in two groups.
Criteria For Selection Of Patients :-

Inclusion Criteria:
- Age group between 6yrs and 12yrs.
- Patients irrespective of their sex, religion and socio-economical status.
- Patients with symptoms of PittajaMootrakrichchhra.
- Patients agreed for treatment & with informed consent.

Exclusion Criteria:
- Patients with Congenital abnormalities.
- Patients with Chronic renal diseases.
- Patients with Haematuria, Renal failure, Pylonephritis, Nephrotic syndrome, Vescoureteric reflex & Phimosis.
- Patients with Renal tuberculosis.
- Patients having fever.

Subjective Criteria:-
1. SarujamMutrapravritti(Dysuria)
2. SadahamMutrapravritti (Burning Micturation)
3. MuhurmuhuMutrapravritti (Frequency of Urination)

Objective Criteria:-
Urine colour
No. of pus cells
No. of RBCs
Investigation-
Urine Analysis. (It done on before starting and after completion of the treatment.)

MANAGEMENT OF PATIENTS

<table>
<thead>
<tr>
<th>MANAGEMENT OF PATIENTS</th>
<th>TRIAL DRUG</th>
<th>CONTROL DRUG</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRUG NAME</td>
<td>Shrungataka Heem</td>
<td>Gokshura Kashaya</td>
</tr>
<tr>
<td>DOSE</td>
<td>20-40 ml</td>
<td>20-40 ml</td>
</tr>
<tr>
<td>TIME</td>
<td>Twice a day before meal</td>
<td>Twice a day before meal</td>
</tr>
<tr>
<td>DURATION</td>
<td>7 days</td>
<td>7 days</td>
</tr>
<tr>
<td>FOLLOWUP</td>
<td>3rd, 5th, 7th day</td>
<td>3rd, 5th, 7th day</td>
</tr>
<tr>
<td>NUMBER OF PATIENTS</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>ANUPAN</td>
<td>Sharkara</td>
<td>Sharkara</td>
</tr>
<tr>
<td>ROUTE</td>
<td>Orally</td>
<td>Orally</td>
</tr>
</tbody>
</table>

Subjective Criteria:-
1) Sadaham mootrata(Burning micturation):-
Score 0:-No burning micturation.
Score 1:-Mild- burning in morning or at starting of micturation.
Score 2:-Moderate -tolerable burning at starting & during micturation.
Score 3:- Severe- burning which is not tolerable at starting & prolonged for long time.
2) Muhurmuhumootrata (Frequency of micturation):
- Score 0: No frequent micturation (normal 6 to 8 times).
- Score 1: Frequent but controllable (8 to 10 times).
- Score 2: Often frequent not able to control (10 to 12 times).
- Score 3: Many times, more than 12.

3) Sarujammutrapravrutti (Painful micturation):
- Score 0: No pain.
- Score 1: Mild pain occasional only at starting of micturation.
- Score 2: Moderate: Tolerable at starting & during micturation.
- Score 3: Severe/more, unable to tolerable at starting & prolonged for long time.

Objective Criteria:

Colour of Urine:
- Score 0: Clear to pale yellow
- Score 1: Dark yellow
- Score 2: Amber coloured
- Score 3: Orange coloured

Pus cells:
- Score 0: 0 to 4 p.c./hpf
- Score 1: 5 to 20 p.c./hpf
- Score 2: 21 to 40 p.c./hpf
- Score 3: Above 40./hpf

RBCs in urine:
- Score 0: No RBCs found in urine (0/hpf).
- Score 1: Few RBCs found in urine (1-10/hpf).
- Score 2: Moderate number of RBCs found (11-20/hpf).
- Score 3: Abundant RBCs found in urine (Above 20/hpf)
  - Frank blood seen in urine.

Observations

Table no 1 Age wise distribution

<table>
<thead>
<tr>
<th>Age Group in years</th>
<th>Group (A)</th>
<th>Group (B)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of patients</td>
<td>Percen Tage</td>
<td>No. of patients</td>
</tr>
<tr>
<td>6 to 8</td>
<td>16</td>
<td>53.33%</td>
<td>14</td>
</tr>
<tr>
<td>8 to 10</td>
<td>14</td>
<td>46.67%</td>
<td>14</td>
</tr>
<tr>
<td>10 to 12</td>
<td>0</td>
<td>0.00%</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100 %</td>
<td>30</td>
</tr>
</tbody>
</table>
Table no.2 Gender wise distribution

<table>
<thead>
<tr>
<th>Gender</th>
<th>Group (A)</th>
<th></th>
<th>Group (B)</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of patients</td>
<td>Percen tage</td>
<td>No. of patients</td>
<td>Percen tage</td>
<td>No.of patients</td>
<td>Percen tage</td>
</tr>
<tr>
<td>Female</td>
<td>20</td>
<td>66.67%</td>
<td>18</td>
<td>60.00%</td>
<td>38</td>
<td>63.33%</td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>33.33%</td>
<td>12</td>
<td>40.00%</td>
<td>22</td>
<td>36.67%</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100%</td>
<td>30</td>
<td>100%</td>
<td>60</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table no. 3 - Hygiene wise distribution

<table>
<thead>
<tr>
<th>Hygiene</th>
<th>Group (A)</th>
<th></th>
<th>Group (B)</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of patients</td>
<td>Percen tage</td>
<td>No. of patients</td>
<td>Percen tage</td>
<td>No.of patients</td>
<td>Percen tage</td>
</tr>
<tr>
<td>Good</td>
<td>2</td>
<td>6.67%</td>
<td>4</td>
<td>13.33%</td>
<td>6</td>
<td>10.00%</td>
</tr>
<tr>
<td>Moderate</td>
<td>23</td>
<td>76.67%</td>
<td>17</td>
<td>56.67%</td>
<td>40</td>
<td>66.67%</td>
</tr>
<tr>
<td>Poor</td>
<td>5</td>
<td>16.67%</td>
<td>9</td>
<td>30.00%</td>
<td>14</td>
<td>23.33%</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100%</td>
<td>30</td>
<td>100%</td>
<td>60</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table no. 4 – Socio-Economical status wise distribution

<table>
<thead>
<tr>
<th>Socio-Economical class</th>
<th>Group (A)</th>
<th></th>
<th>Group (B)</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of patients</td>
<td>Percen tage</td>
<td>No. of patients</td>
<td>Percen tage</td>
<td>No.of patients</td>
<td>Percen tage</td>
</tr>
<tr>
<td>Good</td>
<td>2</td>
<td>6.67%</td>
<td>1</td>
<td>3.33%</td>
<td>3</td>
<td>5.00%</td>
</tr>
<tr>
<td>Moderate</td>
<td>19</td>
<td>63.33%</td>
<td>19</td>
<td>63.33%</td>
<td>38</td>
<td>63.33%</td>
</tr>
<tr>
<td>Poor</td>
<td>9</td>
<td>30.00%</td>
<td>10</td>
<td>33.33%</td>
<td>19</td>
<td>31.67%</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100%</td>
<td>30</td>
<td>100%</td>
<td>60</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table no. 5 – OVERALL EFFECT OF THERAPY on 60 patients of PITTTAJA MOOTRAKRICHCHHRA

<table>
<thead>
<tr>
<th>Result</th>
<th>Group A</th>
<th></th>
<th>Group B</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of patients</td>
<td>%</td>
<td>Number of patients</td>
<td>%</td>
</tr>
<tr>
<td>Excellent (76 to 100 %)</td>
<td>25</td>
<td>83.33%</td>
<td>27</td>
<td>90.00%</td>
</tr>
<tr>
<td>Good (51 – 75 %)</td>
<td>5</td>
<td>16.6%</td>
<td>3</td>
<td>10.00%</td>
</tr>
<tr>
<td>Fair (26 – 50 %)</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Poor (below 25 %)</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Results and conclusion
- Out of the all 60 patients, females are 63.37% and males are 36.67%, in hygine wise most of in moderate i.e. 66.67%, then in poor i.e. 23.33%, then in good i.e. 10%; socioeconomically more in moderate group i.e. 63.33%, then poor i.e. 31.67%, then good i.e. 5% patients are found.
• Effect of the Shrungataka Heem (group a) and Gokshura Kashaya (group b) on symptoms observed in Pittaja mootrakrichchhra is statistically proved to be significant on subjective criteria and objective criteria separately.

• the effect of Shrungataka Heem (group a) is significant than Gokshura Kashaya (group b) for subjective criteria such as Sadaha mootrata (burning micturation) of Pittaja Mootrakrichchhra.

• The effect of Shrungataka Heem (group a) is not significant than Gokshura kashaya (group b) for subjective criteria such as Saruja mmutrapravrutti (painful micturation).

• There is no significant difference between Shrungataka Heem (group a) and Gokshura kashaya (group b) for Muhurmuhumootrata (frequency of micturition, colour of urine, pus cells, and rbc’s of Pittaja mootrakrichchhra).

• Thus it can be concluded that Shrugataka heem is good medicine without any adverse effect with minimal expense and palliative, testy for children for better management of Pittaja Moottakrichchhra.

References:


10. Article “Urinary tract infections in children” published by Dr MalcomThaler, M.D. in Urological health news.