ROLE OF INDIGENOUS COMPOUND ON ARTAVAKSHAYA W.S.R TO OLGHOHYMENORRHOEA

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ABSTRACT
Menstruation is a major stage of puberty in girls; it’s one of the physical sign that a girl is turning into woman. Menstrual cycle is a beautiful hormonal change that takes place every month in woman’s life. Due to changed lifestyle, the physical and emotional stress increases, this alters the physiology and ends with the disruption of ‘H-P-O’ axis and it may lead to many gynecological disorders. Artava kshaya is one among them. In Artava kshaya menstruation is delayed, scanty and associated with pain in vagina¹. As aggravated vata and kapha obstruct the passage of Artava leading to Artava kshaya. So to remove this obstruction & for bringing the normal and regular cycles, a trial drug containing 4 drugs having Garbhashaya sankochaka and artavajanana property was used.

KEY WORDS: Artavakshaya; Menstrual cycle; Agneya dravyas.

INTRODUCTION:
The Artava (menstruation/liberation of ovum) is one of the essential factors for the production of Garbha in the females. It makes its appearance only when the woman has attained adulthood and during her active reproductive phase. The word Kshaya has been derived from “kshi” dhatu, which means “to cease” or “to get reduced”. According to Acharya Charaka, the word kshaya means “hrasa” or “nyunata”. Menstruation is a major stage of puberty in girls, it is one of the physical signs that a girl is turning into a woman. As women ages, many changes take place in the female reproductive system. Due to changed lifestyle, food habit, the physical and...
emotional stress increases which alter the physiology and ends with the disruption of H-P-O axis it may lead to many gynecological problems.

Acharya Sushruta has explained about Artavakshaya features specifically as delayed and scanty menstruation associated with pain in vagina i.e. **YATHOCHITAKAL ADARSHANAM** (delayed menstruation) and **ALPATVAM** (scanty menstruation). It can be co-related to oligo and hypomenorrhea by their sign and symptoms. Menstrual bleeding occurring more than 35 days apart which remains constant at the frequency is oligomenorrhea. When menstrual bleeding is unduly scanty and lasts for less than 2 days is called Hypomenorrhea².

To prevent all these hazards and to maintain healthy life, safe ayurvedic non-hormonal drug formulation as quoted by Acharya Yogratnakara i.e **Jyotismati, Krishnajeeraka, Krishnatila** used as **Artava janana** drugs in **Yonivyapad roganam chikitsa** & **Krishnatila, Karpasamoola** as mentioned in Bhavaprakash nighantu is proposed.

**AIM AND OBJECTIVES:**

1. To study Artavahsaya in detail.
2. To evaluate the efficacy of an indigenous compound in the management of Artavakshaya.

**DRUG REVIEW:**

**Indigenous compound (Jyotismati, Karpasamoola, Krishnajeeraka, Krishnatila)** is administered orally in the dose of 6gm daily in divided dose in churna form with **Ushnajala** for 3 consecutive cycles, assessment done after each cycle.

JYOTISMATI⁵:
- **Guna**- Tikshna
- **Rasa** – Katu, Tikta
- **Virya** – Ushna
- **Vipaka** – Katu
- **Karma** –, Medhya, Artavajanana
  - Garbhashayasankochaka,Artavajana
- **Dosha** - Kapha-vatahara

KRISHNAJEERAKA⁷:
- **Guna**- Ruksha
- **Rasa** – Katu
- **Virya** – Ushna
- **Vipaka** –Katu
- **Karma** – Garbhashaya vishodhaka
- **Dosha**- Kaphahara

KARPASAMOOLA⁶:
- **Guna**- Laghu, Tikshna, Seed-Snigdha
  - Root bark-Kashaya
- **Rasa** – Katu, Root bark-Kashaya
- **Virya** – Ushna
- **Vipaka** –Katu
- **Dosha** – Vata-pittahara

KRISHNATILA⁸:
- **Guna**- Guru, Snigdha
- **Rasa** – Madhura, Kashaya, Tikta
- **Virya** –Ushna
- **Vipaka** –Madhura
- **Karma**: Kesya, Rasayana,
  - Artavajanana
- **Dosha**: Vatahara, Kaphapittavardhaka
MATERIAL AND METHODS

SELECTION OF PATIENTS:
Patients were selected from Prasuti Tantra & Stree Roga OPD of Sri Siddharoodh Charitable hospital, Bidar, selected according to inclusion & exclusion criteria, by a simple randomised method for the study with a single group.

CRITERIA FOR SELECTION OF PATIENTS:

INCLUSION CRITERIA:
1. Female patients of age group from 20-35years who are willing to take part in the study.
2. Patients with duration of menstrual flow of 2days or less.
3. Patients with reduced quantity of menstrual flow (i.e. scanty menstruation).
4. Patients with increased intermenstrual period, more than 35days.
5. Pain in vagina.

EXCLUSION CRITERIA:
1. Lactating mother
2. Patients taking OCP
3. Patients having IUCD
4. Patients with systemic disorders like HTN, DM, KOCH’S, HIV, HBsAg & severe anemia.

STUDY DESIGN/ MANAGEMENT

OF PATIENTS:

Patients were selected according to inclusion & exclusion criteria, by a simple randomized method for the study with a single group with indigenous compound.

- Dose : 6gm daily in divided dose in churna form.
- Route : Orally
- Duration : 3 consecutive cycle
- Anupana : Ushna jala.
- Follow up : After each cycle

ASSESSMENT CRITERIA:

The criterion for assessment of treatment is based in improvement in cardinal symptoms like quantity of menstrual flow, duration of menstrual flow, interval between 2cycles and pain in vagina.

According to severity & intensity of the symptoms of Artavakshaya these were graded on the basis of scoring system

CLINICAL ASSESSMENT SCORING METHOD:

1) Duration of menstrual phase:
   - 4 – 7 days → Grade 0
   - 3 days → Grade 1
   - 2days → Grade 2
   - 1 day → Grade 3

2) Amount of bleeding:
   - 3 pads / day → Grade 0
2 pads / day → Grade 1
1 pad / day → Grade 2
Spotting (without pads) → Grade 3

3) Duration of inter menstrual phase:
28 – 35 days → Grade 0
36 – 40 days → Grade 1
41 – 50 days → Grade 2
>50 days → Grade 3

4) Pain in Vagina:
No pain → Grade 0
Mild → Grade 1
Moderate → Grade 2
Severe → Grade 3

TOTAL EFFECT OF THE THERAPY
Total effect of the therapy was assessed in terms of cured, moderately improved, & unchanged.

Cured:

EFFECT ON OBJECTIVE PARAMETER:

Duration of Menstrual Cycle

<table>
<thead>
<tr>
<th>Cycle</th>
<th>BT (Mean)</th>
<th>AT (Mean)</th>
<th>SD</th>
<th>SE</th>
<th>‘t’ Value</th>
<th>P Value</th>
<th>Relief (%)</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1.725</td>
<td>1.175</td>
<td>0.813</td>
<td>0.1285</td>
<td>6.904</td>
<td>P=0.000</td>
<td>55%</td>
<td>S</td>
</tr>
<tr>
<td>II</td>
<td>1.725</td>
<td>0.70</td>
<td>0.6485</td>
<td>0.1025</td>
<td>8.446</td>
<td>P=0.000</td>
<td>70.0%</td>
<td>HS</td>
</tr>
<tr>
<td>III</td>
<td>1.725</td>
<td>0.25</td>
<td>0.6304</td>
<td>0.0996</td>
<td>8.592</td>
<td>P=0.000</td>
<td>75%</td>
<td>HS</td>
</tr>
</tbody>
</table>

Amount of Bleeding

<table>
<thead>
<tr>
<th>Cycle</th>
<th>BT (Mean)</th>
<th>AT (Mean)</th>
<th>SD</th>
<th>SE</th>
<th>‘t’ Value</th>
<th>P Value</th>
<th>Relief (%)</th>
<th>Conclusion</th>
</tr>
</thead>
</table>

Duration of bleeding is 4 – 7 days; interval of cycle is 28 – 35 days with normal quantity of bleeding in cycle.

Moderately improved:
There is moderately improvement in one or two symptoms.

Unchanged:
There is no change in any of the parameters of duration, interval and quantity.

OBSERVATIONS: The present study was carried out in total 40 patients, selected by a simple randomised method for the study with a single group; all the selected patients are thoroughly examined, diagnosed and selected based on inclusion and exclusion criteria. The assignment revealed the following statistics.
Interval between Two Menstrual Cycles

<table>
<thead>
<tr>
<th>Cycle</th>
<th>BT (Mean)</th>
<th>AT (Mean)</th>
<th>‘t’ Value</th>
<th>P Value</th>
<th>Relief (%)</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2.325</td>
<td>1.60</td>
<td>0.8412</td>
<td>0.133</td>
<td>7.660</td>
<td>67.5%</td>
</tr>
<tr>
<td>II</td>
<td>2.325</td>
<td>1.47</td>
<td>0.8469</td>
<td>0.133</td>
<td>7.682</td>
<td>75.0%</td>
</tr>
<tr>
<td>III</td>
<td>2.325</td>
<td>0.475</td>
<td>0.9055</td>
<td>0.143</td>
<td>11.130</td>
<td>87.0%</td>
</tr>
</tbody>
</table>

Yonivedana

<table>
<thead>
<tr>
<th>Cycle</th>
<th>BT (Mean)</th>
<th>AT (Mean)</th>
<th>‘t’ Value</th>
<th>P Value</th>
<th>Relief (%)</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0.80</td>
<td>0.30</td>
<td>0.4641</td>
<td>0.073</td>
<td>6.245</td>
<td>52.5%</td>
</tr>
<tr>
<td>II</td>
<td>0.80</td>
<td>0.20</td>
<td>0.4051</td>
<td>0.064</td>
<td>6.958</td>
<td>75.0%</td>
</tr>
<tr>
<td>III</td>
<td>0.80</td>
<td>0.125</td>
<td>0.3349</td>
<td>0.052</td>
<td>7.459</td>
<td>90.0%</td>
</tr>
</tbody>
</table>

1. EFFECT OF DRUG ON DURATION OF MENSTRUAL CYCLE
Comparison between BT and AT
Trial group
The mean of the symptom which was 1.725 before treatment, reduced to 1.175 after first follow up, after second follow up it is reduced to 0.70, after third follow up the mean of duration of menstruation was reduced to 0.25. When these values were statistically analyzed, it showed that the drug was highly significantly effective with p value 0.000.

2. EFFECT OF DRUG ON THE AMOUNT OF BLEEDING
Comparison between BT and AT
Trial group
The mean of the symptom which was 2.6 before treatment reduced to 1.82 after first follow up, after second follow up it is reduced to 1.25, after
third follow up the mean of amount of bleeding was reduced to 0.25. When these values were statistically analyzed, it showed that the drug was significantly effective with p value 0.000.

3. EFFECT OF DRUG ON INTERVAL BETWEEN TWO MENSTRUAL CYCLES

Comparison between BT and AT

Trial group

The mean of the symptom which was 2.325 before treatment reduced to 1.60 after first follow up, after second follow up it is reduced to 1.47, after third follow up the mean of interval of bleeding was reduced to 0.475. When these values were statistically analyzed, it showed that the drug was significantly effective with p value 0.000.

4. EFFECT OF DRUG ON YONI VEDANA

Comparison between BT and AT

Trial group

The mean of the symptom which was 0.80 before treatment reduced to 0.30 after first follow up, after second follow up it is reduced to 0.20, after third follow up the mean of yonivedana was reduced to 0.125. When these values were statistically analyzed, it showed that the drug was significantly effective with p value 0.000.

OVER ALL RESULT

<table>
<thead>
<tr>
<th>Result</th>
<th>No. of patients</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURED</td>
<td>30</td>
<td>75</td>
</tr>
<tr>
<td>IMPROVED</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>UNCHANGED</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>

Graph No. 14
The above table shows that 75% patients’ completely cured; moderate improvement was seen in 15% patients, unchanged were 10%.

DISCUSSION
Properties of Indigenous compound
Use of Jyotismati, Karpas mula, Krishna jiraka & Krishna Tila these Agneya Dravyas relieves the kapha which does avarana to apanavata and also increases the quantity of artava. As Agneya Dravyas have ushna virya, it maintains the normalcy of ruksha & sheeta guna of vata, snigdha & pichhila guna of kapha. Jyotismati patra has Katu and Tikta rasa with Tikshna guna, Ushna Virya and Katu vipaka, with properties of Vatahara and Artavajana; Karpasa mula has Katu and Kashaya rasa with Laghu Tikshna guna, Ushna virya and Katu vipaka, with properties of Garbhashaya sankochaka, and Artava janana. Krishna Jiraka Beeja has Katu rasa with Laghu Ruksha guna, Ushna virya and Katu vipaka, with properties of Garbhashaya Sankochaka, and Garbhashaya vishodhak. Krishna Tila Beeja has Madhura rasa, Anurasaka-Kashaya, and Tikta, with Guru Snigdha guna, Ushna virya and madhura vipaka, with properties of Artavajanana and Garbhashaya shodhaka. Oral administration of Agneya dravyas mentioned above taken all in equal quantity and all has ushna virya which increases agni thus acts as Amapachana. It leads to Sroto shudhi and simultaneously nourishes the Rasadi dhatus. It in turn favours the samyak utpatti of Rasa Raktadi dhatus leads to Samyak utpatti of Upadhatu Artava, by acting on Dhatvagni thus normal amount of bleeding occurs. As well as Garbhashaya sankochaka and vishodhak properties helps in regulating duration of menstrual phase and prolonged inter-menstrual period. Jyotismatadi dravyas may influence Oestrogen and aids to regulate Hypothalamo-pituitary ovarian axis and thus regulates menstrual cycle. As Oestrogen level increases results in loss of pain in vagina.

DISCUSSION ON CLINICAL STUDY:
- Most of the patients belong to 18-25 year age group (50%). In this age group mainly students were noted. Unmarried were (75%).
• 70% patients were from urban area due to sedentary life style, stressful life.

• In present study most of the women registered were Students (75%), as students were exposed to competitive study pattern which increases stress and strain, over consciousness, shyness, and inadequate intake of food, habit of junk foods which does not have any nutrients these all leads to Artavakshaya.

• The observation made in regards to socio-economic status indicates that most of the patients (70%) belong to middle class. The reason for this may be, that of improper diet leading to malnutrition.

• (37.5%) patients included in the present study were of > 60 kg of weight, they can be termed as obese which affects the physiological function of Artava chakra. Other (32.5%) patients were underweight; both overweight and underweight were registered. This shows de-regulation of hormonal pathways in both extremes.

CONCLUSION:

• In nutshell, this clinical study was conducted on the basis of the aforesaid parameter, and encouraging result was inferred by the treatment of Agneya dravyas in Artava kshaya patients.

• Menstrual irregularities have adverse impact on women if not diagnosed and treated properly.

• Agneya dravyas i.e. Jyotismati, Karpas mula, Krishna jiraka, Krishna Tila may influence Oestrogen and aids to regulate Hypothalamo-pituitary ovarian axis and thus regulates menstrual cycle. As Oestrogen level increases pain in vagina decreases.

• Artava kshaya is a common health complaint for which most of the young ladies been registered in case study. The direct impact of food and beverages is found here.

• History of fast food and junk food stand as the main evidences in this regard. So it has become common to ask all the patients to avoid such food from the beginning of the treatment itself. Quite good result in less period of time noticed by this.
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