STUDY THE EFFICACY OF KASHERUKA, PUSHKARBEEJA, SHRUNGATAKA CHURNA IN THREATENED ABORTION

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ABSTRACT
Threatened abortion is one of the types of abortion in which pregnancy may continue if treated in time. In Ayurveda, it can be correlated with Garbhastrava purvarupavastha. In threatened abortion vaginal bleeding occurs within the first 12 weeks of gestation. According to Ayurveda, haemorrhage in early pregnancy has been mentioned in garbhopaghatakara bhavas. In present study, 15 patients having 6 - 12 weeks of amenorrhea, complaint of alpa yonigat rakta strava, alpa udar shool, alpa kati shool, sub chorionic haemorrhage diagnosed by U.S.G. were registered. They were administered with kasheruka, pushkarbeeja, shrungatka churna ksheerpaka in a dose of 40ml TDS up to 12 weeks of pregnancy (1st trimester). The result of study revealed that 13 patients get relief in the symptoms, 68 % patients got relief in yoni gata rakta strav, 55.17% in udarshool, 62.86% in katishoool. Hence, we can conclude that the drug is found to be effective in treating threatened abortion.

Keywords: Threatened abortion, Garbhastrava purvarupavastha, Garbhashtapaka, Rakta stambhaka

INTRODUCTION
Pregnancy is the most joyful and exciting movement in a women’s life. The foundation of good and healthy child is based on appropriate and adequate diet and mode of lifestyle (Hitkar Ahar and Vihar) of garbhini (Pregnant Women). Above 50-60% causes of threatened abortion are exposure to environmental toxins, age, aahar, vihar, stress, problem with the body’s immune, hormone problem, drug and alcohol abuse, smoking etc. As per available data, threatened abortion is seen in 42-45% of all pregnancies in world and in India it is 20-25%. According to the available data from Bharati Ayurveda Hospital the prevalence rate is 1.01 %. Threatened abortion pregnancy can be continued with proper treatment. The diagnosis of threatened abortion is frequently made in clinical practice by history of vaginal spotting. A definitive diagnosis of threatened abortion needs P/V examination, Ultrasoundography examination and clinical examination.

According to Ayurveda threatened abortion can be correlated with Garbhastrava Purvarupavastha. Acharya’s explained various drug for garbhastrava purvarupavastha, which have Madhura Rasa, SheetaVirya
and Madhura Vipaka yukta drugs. Among them we had chosen Shrugataka, Pushkarbeeja and Kasheruka, which are sheeta virya and also garbhasthapaka drugs.

In modern science this condition is treated with progesterone and HCG (human chorionic gonadotropic hormones). However, these therapies are very much expensive for the patient and new researches suggest that they are harmful for fetus.

So, it is the need of hour to find out the solution by the natural way. Ayurveda has elaborated the treatment of Garbhstrava which can be used as an alternative for these therapies. Therefore, we thought to find out an Ayurvedic way and come up with the idea of this study.

**Aim:** Study the efficacy of Shrugataka, Pushkarbeeja and Kasheruka in Threatened Abortion.

**Objectives:**
1. To study the effect of Shrugataka, Pushkarbeeja, Kasheruka in Garbhastrava Purvarupavastha.
2. To find relation between Garbhastrava Purvarupavastha and 1st trimester threatened abortion.
3. To evaluate the effect of threatened abortion on early and late pregnancy outcome.
4. To study any untoward effect of the drug.

**Methods and Materials**

**Clinical type-**
1. Trial type - Simple randomized open clinical study
2. Sample size - 15 patient.
3. Collection of drugs - The drugs were collected from local pharmacy and Authentication and Standardization was done at Savitribai Phule Pune University.
4. Form of drugs - Churna form.

**Material-**
1. Drug name- Shrugataka
   - Latin name- Trapa bispinosa
2. Drug name- Pushkar beeja
   - Latin name- Nelumbo nucifera
   - Family- Nelumbonaceae
   - Guna- Laghu, snigdha, pichchal
   - Rasa- Madhura, Kashaya, tikta
   - Vipaka- Madhura
   - Veerya- Sheeta
   - Dosaghnta- Pittahara
   - Karma- Pittahara grahi
   - Part use of Drug-Fruit
3. Drug name- Kasheruka
   - Latin name- Scirpus grossus
   - Family- Cyperaceae
   - Guna- Guru, ruksha
   - Rasa- Madhura, Kashaya, vati
   - Vipaka- Madhura
   - Veerya- Sheeta
   - Dosaghnta- Kapha-pittashamana
   - Karma- Garbhasthapaka, Tridhosatamak
   - Part use of drug-seed (Lotus seed)
4. Drug name- Dugdha
   - Guna- Guru, Snigdh
   - Rasa- Madhur
   - Vipaka- Madhur
   - Veerya- Sheeta
   - Dosaghnta- Vatapittaghana
   - Karma- Kaphavardhan
Table 1:

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Latin Name And Family</th>
<th>Guna</th>
<th>Rasa</th>
<th>Vipaka</th>
<th>Veerya</th>
<th>Doshaghnta</th>
<th>Karma</th>
<th>Part Use Of Drug</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shrungata- Ka¹</td>
<td>Trapabispinosatrapaceae</td>
<td>Guru, Ruksha</td>
<td>Madhura-kashaya</td>
<td>Madhura</td>
<td>Sheeta</td>
<td>Pittahara</td>
<td>Pittaharagrahi</td>
<td>Fruit</td>
</tr>
<tr>
<td>Pushkar Beeja²</td>
<td>Nelumbo-nuciferanelumbonaceae</td>
<td>Laghus-nigdhapichchal</td>
<td>Madhura-kashayatikta</td>
<td>Madhura</td>
<td>Sheeta</td>
<td>Kapha-Pittashamana</td>
<td>Garbhasthapakatridosatamak (Seed)</td>
<td>Lotus Seed</td>
</tr>
<tr>
<td>Ka- sheruka³</td>
<td>Scirpusgros-scyperaceae</td>
<td>Guru Ruksha</td>
<td>Madhur-kashaya</td>
<td>Madhur</td>
<td>Sheetav</td>
<td>Pit-tashamaka</td>
<td>Pittaharasukralagrahi</td>
<td>Tuber (Phyto-proges-terone)⁶</td>
</tr>
<tr>
<td>Dugdha⁵</td>
<td>Guru Snigdh</td>
<td>Madhur</td>
<td>Madhur</td>
<td>Sheeta</td>
<td>Vatapitta-ghana</td>
<td>Kaphavardhan</td>
<td>Milk</td>
<td></td>
</tr>
</tbody>
</table>

5. Method of preparation of drug-
क्षीरंमष्टगुणंद्रव्यात्क्क्षीरन्नीरंचतुगुुणं | क्षीरवशेषंतत्क्पीतं | शूलमामोद्भवंजयेत् |
| (श. स. म.ख.2 / 175) |

One part of Aushadi (shrungataka, pushkarabeeja and kasheruka each 1.5 gm), 40ml Dugdha and 100ml water were taken. All the materials were boiled together till 8th part (40ml) remained. Ksheerapaka was achieved.

Route of administration- Oral
Dose – 40ml TDS
Follow up- up to 12 weeks of pregnancy

6. Selection criteria
For clinical part of study, 15 patients fulfilling the criteria of study were selected from OPD and IPD of Bharati Vidyapeeth Ayurvedic Hospital, Pune. Detailed history, general examination, obstetric history was taken, USG and laboratory investigations were done. Patients were examined thoroughly on the basis of proforma prepared and informed consent was also obtained.

Thereafter, Patient were administered with kasheruka, pushkarbeej, shrungataka ksheerpaka in a dose of 40ml for a period till completion of 12th weeks. Counselling of the couple to alleviate anxiety and improve the psychology.

Inclusion Criteria
- Pregnant women with the complain of one or more of the symptoms of abortion like spotting, abdominal pain and backache in first trimester (6-12 weeks) of pregnancy were evaluated and patient diagnosed with threatened abortion were included in the study.
  - Alpa yonigat raktastrava.
  - Alpa udar shool.
  - Kati vankshan shool
  - Stable general condition
  - Cervix closed

Exclusion Criteria
- Pregnancy above 12 weeks.
- Ectopic pregnancy.
- Garbhastrava rupavastha.
- Missed abortion.
- GDM.
- PIH.
- Patient not willing.
- BOH

Discontinuation Criteria:
- Severe illness during study.
- Development of any side effect.
- If patient suffer from severe infection during study.
Assessment Criteria:

**Table 2:**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Before Treatment</th>
<th>During Treatment (VISIT)</th>
<th>After Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>USG (Sonography)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Strava</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Udarshool</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kati shool</td>
<td>(Na-- Not Applicable)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diagnosis Criteria:

**Table 3:** Severity of symptoms in gradation

<table>
<thead>
<tr>
<th>Grade</th>
<th>Strava</th>
<th>Kati shool</th>
<th>Udarshool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 0</td>
<td>NIL</td>
<td>No pain</td>
<td>No pain</td>
</tr>
<tr>
<td>Grade 1</td>
<td>Alpa</td>
<td>Sometimes shool</td>
<td>Sometimes shool</td>
</tr>
<tr>
<td>Grade 2</td>
<td>Madhyam</td>
<td>Disturb daily routine work</td>
<td>Disturb daily routine work</td>
</tr>
<tr>
<td>Grade 3</td>
<td>Prabhut</td>
<td>Sleeplessness</td>
<td>Sleeplessness</td>
</tr>
</tbody>
</table>

For assessment of pain VAS scale was used.

Rating scale as per VAS scale

**Result -**

Statistical analysis was done for subjective and objective parameters before treatment and after treatment and follow up.

**Graph 1:** Effect of shrungataka, Pushkarbeeja and kasheureka on yonigat rakta strava in threatened abortion.

The mean grade of Yonigat rakta strava before treatment (BT) was 1.07 which was decreased to 0.33 after treatment (AT). The mean increment score was 68.75% which is significant as observed by paired ‘t’ test (as p value<0.05) thus it can be said that there is significant improvement on Yonigat rakta strava in threatened abortion.

**Graph 2:** Effect of shrungataka, Pushkarbeeja and kasheureka on udar shool in threatened abortion.

The mean grade of Udar shool before treatment (BT) was 1.93 which was decreased to 0.87 after treatment (AT). The mean increment score was 55.17% which is significant as observed by paired ‘t’ test (as p value<0.05) thus it can be said that there is significant improvement on Udar shool in threatened abortion.

**Graph 3:** Effect of shrungataka, Pushkarbeeja and kasheureka on kati shool in threatened abortion.
The mean grade of Kati shool before treatment (BT) was 2.33 which was decreased to 0.87 after treatment (AT). The mean increment score was 62.86% which is significant as observed by paired ‘t’ test (as p value<0.05) thus it can be said that there is significant improvement on Kati shool in threatened abortion.

OBSERVATIONS & DISCUSSION
Among 15 patients, 60% were 20-25 years age. Now a days this is ideal childbearing period. Luteal phase Defect is more observed in this age group. Socio economic status of 67% patients was middle class and 46% were educated upto Secondary. These patients were not aware about proper diet, coitus, travelling during pregnancy. 60% patients were Housewife. They are generally careless about their health and have mental stress and tension of managing the family.

The data related to hetu revealed that 40% of patient had Aharaj hetu and Viharaj hetu i.e. ushna teekshna ahar sevan, and ride on vehicle. Vata Pitta prakruti was found dominant in 53% patients. This prakruti is more prone to develop dushti of Vata along with pitta, which cause irritation of bowels and Apana Vayu vikriti that may lead to threatened abortion. 33.33% patients had gestational age 6 weeks. At the age of 6 weeks of gestation, progesterone is essential to maintain the pregnancy and support the growth of the lining of uterus. After fertilization, the follicle seals itself off and form corpus luteum. This mass of cells helps to produce the hormone progesterone during early pregnancy. Due to any functional default and dysfunction in corpus luteum, Progesterone value decreases and LPD may develop. Sub choric hemorrhage was not seen in 66.6% whereas 33.33% patients showed subchorionic hemorrhage. Poor placentation due to unknown cause, can impair angiogenesis and lead to the formation of weak vessels that tear easily. In SCH, it is postulated that the marginal utero-placental vein tears and cause low pressure bleeding. The blood tracks around the gestational sac to form a cresenteric haematoma between the choric membrane and the uterine wall.

Mode of action of drug Nidana parivarjana is mentioned as first line of treatment for any disease. Along with nidana parivarjana the use of Shringataka, Pushkarbeeja and Kasheruka ksheer paka breaks samprapti of Garbhravastva purvarupavastha. These drugs have Guru, Sheeta, Madhura, Kashaya properties. Due to these attributes they act as Dhatuposhaka, Balya and sthambhana. The aggravated Apana Vayu and Pitta causes koshtha kshobha, katishoor and Udarsheal and may lead to Garbhastrava. The Shringataka, Pushkarbeeja and Kasheruka Ksheer paka pacifies the aggravated apana vayu and Pitta the main cause of Garbhastrava and acts as Kaphavardhaka which is essential for sustaining pregnancy in first trimester i.e. Garbhasthapana.

CONCLUSION
Garbhastrava was seen more in primi patient and at 6th week of gestation. Vata pitta dushti is a key factor for garbhastrava purvarupavastha. Vata gets aggravated by vihar and pitta aggravated by ushna tikshn ahar sevan. Consumption of these nidana in garbhavastha causes vitiation of vata pitta dosha and leads to garbhastrava. Kasheruka, Shringataka & Pushkarbeeja is more effective in Threatened abortion. In this study, out of fifteen patient’s, five patients were seen subchoric haemorrhage and resolved after treatment. We observed that drug shringataka, pushkarbeeja and kasheruka churna was effective on 80% recruited patient. These drugs don’t show any side effect. So, we can conclude that Shringataka, Pushkarbeeja and Kasheruka Ksheer paka was found effective in treating Threatened abortion.

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