STUDY OF THE EFFICACY OF PANCHAKOLA CHURNA IN SUTIKA PARICHARYA IN DE-CREASING THE INCIDENCE OF SECONDARY POSTPARTUM HAEMORRHAGE (PPH)

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ABSTRACT
Postpartum Hemorrhage (PPH) is the leading contributor to Maternal morbidity in today’s era responsible for approximately 25% of the nearly 300,000 maternal deaths estimated to occur in each year. There is no clear or standard definition for quantity of the blood loss associated with secondary PPH but clinical expressions of this definition vary from ‘increased lochia’ to massive bleeding. Overall, the reported incidences of secondary PPH in the developed world varies from 0.47% to 1.44%. The etiological factors measure Sub involution of Uterus, Lower genital tract trauma, Placental abnormalities, Uterine abnormalities, vascular abnormalities, Caesarean section wound dehiscence or surgical injury, Coagulopathies etc. Ayurveda classics states that if Sutika Paricharya followed in complete way may reduce chances of Secondary PPH. Among that Panchakola Churna Siddha Yavagu removes placental remnants by Shodhana process.

Keywords: Secondary PPH, Panchakola Churna

INTRODUCTION
Postpartum hemorrhage (PPH) is a major cause of maternal mortality and morbidity. PPH is classified as Primary i.e. PPH in first 24 hours after delivery[¹] and Secondary i.e. PPH after 24 hours after delivery and up to 6 weeks of delivery [²]. Secondary PPH has very less incidence rate of 1 to 2% but mortality and morbidity rate in secondary PPH is very high up to 40% due to big number of non-institutional deliveries, postpartum care at home, high incidence of nutritional anemia,
poor health education etc. in India. The etiological factors measure Sub involution of Uterus, Lower genital tract trauma, Placental abnormalities, Uterine abnormalities, vascular abnormalities, Caesarean section wound dehiscence or surgical injury, Coagulopathies etc. The most important cause of secondary PPH is placental remnants in the uterus [3] The reported incidences of secondary PPH in the developed world varies from 0.47% to 1.44% [4]. In Ayurvedic text directions of postnatal care is described in detail. Garbhashaya shodhana, Vatashamana, Dipana, Pachana and Balya Aushadhi are the basic principles of postnatal care in Ayurveda. Garbhashaya Shodhana is basic Upakrama in order to clean the placental remnants in the uterus which is one of the most important causes of secondary PPH. According to all classics, in Sutika Paricharya Garbhashaya Shodhana dravyas are indicated in first few days in the form of Panchakola siddha Tavaggu [3]. It causes expulsion of placental remnants and hence good involution of uterus.

Research Question: - Is Panchakola Churna (Trial Drug) effective in Sutika Paricharya in decreasing the incidence of secondary PPH than conventional management?

Null Hypothesis (H₀):- Panchakola Churna is not significantly effective in Sutika paricharya in decreasing the incidence rate of Secondary PPH.

Alternative Hypothesis (H₁):- Panchakola Churna is significantly effective in Sutika paricharya in decreasing the incidence rate of Secondary PPH.

Primary Objective (Aim):- To study the efficacy of Panchakola Churna in Sutika paricharya in decreasing the incidence rate of secondary PPH.

Secondary Objective: - To study the efficacy of Panchakola Churna in Sutika paricharya with respect to Pain, Involution of Uterus, Lactation and Appetite.

Materials:-
1. Case Record forms (Specially designed)
2. Panchakola Churna purchased and authenticated from a GMP certified company. Panchakola Churna consists of Pimpali, Pimpali mula, Chavaka, Chitraka and Shunthi.
3. Standardized Sanitary Pads to evaluate per vaginal bleeding.

Methods:- A double armed controlled randomized clinical trial as a Pilot study was performed to evaluate the efficacy of Panchakola Churna in decreasing the incidence rate of secondary PPH.

Sample Size:- 1000 PNC patients with normal delivery. As incidence rate of secondary PPH is 1 to 2% only the sample size of 1000 patients were selected for pilot study.

Work Place:-- Sub District Hospital, FCI Road, Manmad Tal. Nandgaon, Dist. Nashik.

Clinical Study:- 1000 patients were classified in two groups viz. A and B. Patients from group A were given Panchakola Churna capsules in dose of 2 gm (i.e. 4 capsules of 500mg) twice a day before meals with warm water as Anupana for first 10 days of puerperium. Group B was observational group and given conventional treatment i.e. Inj. Pitocin 10 IU IM immediately after delivery of baby. All the patients were observed on weekly interval for six weeks of puerperium and assessed for secondary PPH.

Diagnostic Criteria:-
1. Per vaginal bleeding after 24 hours of delivery and before 45 days.
2. More than 300ml of blood loss in 24 hours i.e. complete soaking of more than 5 standard size sanitary pads in 24 hours.

Assessment Criteria: -

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Criterion</th>
<th>Score with description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pain in abdomen</td>
<td>0 – No pain in abdomen&lt;br&gt;1 – Slight pain not interfering in daily activities&lt;br&gt;2 – Pain in abdomen interfering in daily activity&lt;br&gt;3 – Acute pain in abdomen</td>
</tr>
<tr>
<td>2</td>
<td>Appetite</td>
<td>0 – Good appetite i.e. no anorexia for anything&lt;br&gt;1 – Anorexia for some of the specific things</td>
</tr>
</tbody>
</table>
2 – Anorexia for whole food

3

<table>
<thead>
<tr>
<th></th>
<th>Lactation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – Adequate lactation for feeding of the baby</td>
<td></td>
</tr>
<tr>
<td>1 – Inadequate lactation for feeding of baby and using top feed for baby</td>
<td></td>
</tr>
<tr>
<td>2 – No lactation</td>
<td></td>
</tr>
</tbody>
</table>

4

<table>
<thead>
<tr>
<th></th>
<th>Involution of uterus</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – Uterus measures (&lt;\ or =\ 13.5)cm from pubis symphysis during first 24 hours of delivery / Rate of involution of uterus is (&gt;\ or =\ 1.25)cm per day / uterus is not palpable above symphysis pubis after 2 weeks of delivery.</td>
<td></td>
</tr>
<tr>
<td>1 – Uterus measures (&gt;\ 13.5) cm from symphysis pubis during first 24 hours after delivery / Rate of involution of uterus is (&lt;\ 1.25)cm per day / uterus is palpable above symphysis pubis after 2 weeks of delivery.</td>
<td></td>
</tr>
</tbody>
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**Observation And Results:** -

1327 Post-natal patients were registered for this trial of which 327 patients left the trial due to various causes. Data of 1000 patients was analyzed systematically. Maximum patients i.e. 68% presented in the study were from 18 to 25 years of age, 29.3% were from 26 to 30 years, 1.4% were from 31 to 35 years of age and 0.9% were elder than 35 years of age. 38% patients were primigravida, 49.6% were second gravida and 12.4% were more than second gravida (Multigravida). 61.2% patients were from poor (Annual income \(<\ Rs.100000/\)) socioeconomic class, 38% were from middle (Annual income Rs.100000/- to 500000/-) socioeconomic status and 8 were from rich class (Annual income \(>\ Rs. 500000/-\)). 12 patients from group A and 10 patients from group B i.e. total of 22 patients were having history of prolonged and assisted labour. 11 patients from group A and 16 patients from group B i.e. total 27 patients were having history of primary PPH and managed medically and not intervened surgically. 7 patients; 4 from group A and 3 from group B were having history of retained placenta and removed manually. 2 patients i.e. 0.4% from group A and 6 patients i.e.1.2% from group B i.e. total 8 patients were presented with symptoms fulfilling the diagnostic criteria of secondary PPH. 4 patients were multigravida and from the age group of 31 to 35 years of age of which 1 patient was having history of retained placenta and manual removal of placenta and prolonged and assisted labour. 2 patients were second gravida, and both were from the age group of more than 35 years. 1 of them had history of breech presentation and prolonged labour. 2 patients were primigravida and both were having history of prolonged and assisted labour one of them was having history of primary PPH. Prognosis of symptoms ‘Pain in abdomen’ and ‘Appetite’ in group A was significantly better than group B. Changes in lactation was same in both the groups. Involution of uterus in group A was significantly better than group B at the end of 2 weeks after birth.

**DISCUSSION**

Retained products of conception and infection are the leading causes of secondary PPH. In this study total 8 cases were presented with secondary post-partum hemorrhage. In group A only 2 cases were present because of the treatment regimen of *Panchakola Churna*. It is significantly less than group B.

**Sutika**[^6] :- *Sutayaschapi Tatra Syadapara Chenna Nirgata | Prasutaapi Na Suta Stree Bhavatyevam Gate Sati || (Ka.S.11/6)* Kashyapacharya has said until and unless *Aparapatan* takes place *stree* should not be considered as *Sootika*. This clearly indicates that *Aparapatan* (expulsion of placenta) is also very important and it is also the part of delivery process.

**Evam cha masadadhyarhdhanmukthaharadiyantranra | Gatasutahidhanaya syata punaravartadaarshanat || (Va.sha.1/100) Prasuta sardhamasante drishthe va punartave | Sutikanahmahina syadeti dhavanantarermat || (Yo.ra.pa.6/10-2) Sutika as per Ayurvedic literature references of *Ashhtanga Hridaya* and *Yogaratnakar* is she that should be considered for one and half month (45days) from the time of *Apatarpana*[^7][^8].

[^6]: Sutika
[^7]: Apatarpana
[^8]: Aparapatan
Sutika Paricharya \[^{[9]}\]

According to Ashtanga Sangrahamaka, Balataila should be given in Puerperal woman. After feeling of hunger, she should be given with Congenial oleaginous substances mixed with either powdered Panchakola or powder of Yawani, Upakunjika, Cavya, Chitraka, Yosa and Rocksalt, which she can digest in whole day. The woman who is unfit for Oil should be given with Laghupanchamula. After administration of oily substance or decoction her abdomen should be massaged with Ghrita and Oil and wrapped with cloth. After digestion liquid rice gruel properly with Vidaryadi group or Milk. Hot water precedes Ghrita. Regimen used for 3/5/7 nights with light diet along with Yava, Kola, Kulattha. After twelve nights meat soup of wild animals besides oil, ghrita or decoction prepared with Jeevaniya, Brimhaniya, Madhura, Vatahara drugs used in the form of massage, ounquent, irrigation and bathing.

**Importance of Sutika Paricharya**

In Sutika condition following of Sutika routine is very important. Samhita has said that diseases caused in Sutika condition are difficult or impossible to treat. In this context, Acharya has also mentioned about female body condition in Sutika. Acharya Charak in eight lesson of Sharir sthan has said that there is Kshayata and shithilta of all dhatu due to development of fetus \[^{[10]}\]. During the process of labour, there is loss of energy, bodily fluids and blood, hence the patient is all together exhausted. This is the reason, Sutika Paricharya is very important to follow. All the dhatu would regain their samyaaavastha by following this sutika paricharya. Acharya Sushruta has specially mentioned Apatarpana Chiktsa in Sutika, but if the female follows Sutika Paricharya properly, she gains the health soon. In Ashtang Sangraha, Accharaya Vriddha Vagbhata has also mentioned the above things in the third chapter of Sharir sthana. So, considering all the above factors, if the Sutika paricharya is followed properly then the loss of energy and strength which occurs due to the development of the fetus is restored back again. Also, after all she has gone through the pain during labour, loss of bodily fluids and blood, she gains a healthy new life again, if she follows Sutika paricharya.

Panchakola consists of Pimpali, Pimpalimula, Chavaka, Chitraka and Shunthi. The properties of Panchakola are described in Bhavaprakash Nighantu \[^{[11]}\]. Therefore, Panchakola Churna is Katu, Ushna, Tikshna and Pachana. Characteristic property of Katu rasa is Bhedana of Sanghata therefore it liquefies the blood clots and causes excretion of dushta Rakta collected inside the uterus and vagina which causes good involution of uterus. Tikshnaguna causes Shodhana of Garbhashaya (Uterus) which causes excretion of residual endometrium and remaining parts of membranes which remain adhere to uterine wall and prevent uterus to contract completely. Panchakola has Pachana, Ruchikara and the best dipana property which helps to increase appetite of Sutika because due to labour she suffers from Agnimandya. Also, due to Pachana guna dushta dhatu get metabolized and mala bhaga is excreted in the form of ‘Lochia’ Panchakola is described as Anaha and Shoolanashaka which causes decrease in pain in abdomen earlier than normal. It is Kapha and Vata Nepalaka, Sutika is a state of Vata dominance. Therefore, it causes Vatanashana and helps Vata to maintain its normal Gati. It causes complete expulsion of all the products of conception without interruption earlier than normal which in turn results in proper involution of uterus. Kapha causes Shaithilya in Garbhashaya which prevents early and proper contraction of uterus resulting in PPH. Panchkola is Kaphanaloka and due to ushna guna it causes decrease in Garbhashaya shaithilya which helps to contract uterus properly and hence preventing PPH. Overall, it clearly indicates that Panchakola Churna is a good medicine for cleansing of uterus, and contracting it properly which prevents Post-partum hemorrhage. Therefore, Kashyapa stated that \[^{[12]}\]

**CONCLUSION**

Panchakola Churna regimen 2 gm BD for first 10 days after 24 hours of normal delivery significantly reduces the incidence rate of secondary PPH. Panchakola Churna decreases Pain in abdomen and Anorexia. Panchakola Churna causes better and early involution of uterus than normal. Panchakola Churna does not affect lactation.
REFERENCES


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Conflict of Interest: None Declared

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