A Comparative Clinical Study of Karanja Churna and Karanja Tail Yoni Pichu in the Management of Shwetapradar w.s.r. to Leucorrhoea.

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INTRODUCTION
Females are one of the important pillars of family and society. The specific body structure and specific deviation of metabolism of females makes them more prone for infections in reproductive age as child bearing period and they are the workforce in a family, bearing burden of other family member health too. Shwetapradar (Leucorrhoea) is an irritating and disturbing complaint in reproductive age group females in now-a-days. Shwetapradar (Leucorrhoea) is a condition characterized with excessive white vaginal discharge. In our classical text direct explanation or chapter regarding Shwetapradar is not

ABSTRACT:
Background And Aims- Shwetapradar (Leucorrhoea) is one of the most common of all gynecological complaints. In our text Shwetapradar is described directly or indirectly in many Yonirogas as a symptom. In the present study we have used two types of trial drugs namely Karanja Churna for oral route and Karanja Tail for local application as Yoni Pichu with the aim to validate the directives of classics on parameters of a systematic and scientific research work.

Material And Method- The method adopted in present study is Randomized, clinical, open study. This study was done on randomly selected 45 patients which were divided in three groups of 15 patients in each group. All the patients results were assessed subjectively and objectively and statistical evaluation of results were done with ‘paired Wilcoxon signed rank test’ and ‘ unpaired ONE WAY ANOVA test’.

Results- The results were assessed in the form of relief from the symptoms. The results showed that overall relief in group C patients were the highest which was (66.19%) followed by group B (61.38%) and group A (45.96%) 

Conclusion- This can be made out from the study that if both Karanja Churna & Karanja Tail Yoni Pichu are given simultaneously are more effective than Karanja Churna orally alone and Karanja Tail Yoni Pichu vaginally alone.

Key words: Shwetapradar, Leucorrhoea, Pandura-Asrigdara, Kaphavatashamak Yonidoshahrta Krimighna, Kandughna.
mentioned. It is described as a symptom in various diseases. Commentator Chakrapani has explained Pandura-Asrigdara as Shwetapradar & Indu explains it as shukla asrigdara. In the present study Karanja Churna has been selected for the oral route and Karanja Tail has been selected for local application as Yoni Pichu as referred from Bhav Prakash Nighantu (Guduchyadivarga).² The aim of the study is to compare the clinical efficacy of Karanja Churna, Karanja Tail Yoni Pichu in the management of Shwetapradar along with their side effects and complication.

Need of Present Research Work:

Shwetapradar is one of the most common of all gynecological complaints. The prevalence of leucorrhoea in India is estimated to be 27.47%.³ Abnormal vaginal discharge also predisposes to significant morbidity in the form of pelvic inflammatory diseases, infertility, endometriosis, urethral syndrome, pregnancy loss, preterm labour etc. It could be embossing, painful and may cause lot of discomfort, stress and even affect the sexual preferences and libido. Conventional medical treatments may help to relieve symptoms of leucorrhoea but they do not address the root of the problem. So, in contemporary era it is very important to provide Ayurvedic remedies for particular treatment of Shwetapradar (Leucorrhoea).

Design of the study:

The method adopted in present study is Randomized, clinical, open study. The ethical clearance has been obtained vide order no F-10(5)/EC/2014/7228 dated 07/11/2014.

MATERIAL AND METHODS

Drawing up a protocol-

Ethical Committee Approval: F10(5)/EC/2014/7228 Dated 07/11/2014. This study was conducted under a strict protocol to prevent bias and to reduce the sources of error in the study.

Selection of cases-

Total 51 clinically diagnosed and confirmed cases of Shwetapradar were registered for the present clinical trial. The cases were selected from the O.P.D. /I.P.D. of P.G. Department of Prasuti & Striroga, National Institute of Ayurveda (N.I.A.) Hospital, Jaipur. 03 patients in group A, 01 patient in group B, 02 patients in group C were dropped out from the trial before its completion. Hence, present study was done on 45 patients with 15 patients in each group.

Criteria for Selection of patients-

Inclusion criteria:
1. Patients complaining of Shwetsrava per vagina as a cardinal symptom.
2. Age group between 18 to 45 years.

Exclusion criteria:
1. Female less than 18 yrs and more than 45 years of age.
3. Pregnant women.
4. Unmarried girls.
5. Patients suffering from any type of malignancy.
6. Patients suffering from systemic disease.
7. Patients suffering from positive VDRL, HIV, HBsAg.
8. Patients suffering from cervical polyp.
9. Patients suffering from hepatic disorders.

Methods of administration & dose of drug:

❖ Patients selected for clinical trial will be randomly categorized in 3 groups.
❖ Study will be completed on minimun 15 patient in each group.

Group A- Karanja Churna orally.

Dose: 3 gm BD daily (Start after cessation of menses upto 3 weeks)

Group B- Karanja Tail Yoni Pichu.

Dose: 10 ml OD daily (Start after cessation of menses upto 3 weeks)

Group C- Karanja Churna orally & Karanja Tail Yoni Pichu.

Dose: 3 gm BD & 10 ml OD daily (Start after cessation of menses upto 3 weeks)

Criteria of assessment:

A special scoring pattern was applied in symptoms and associated complaints
Subjective Parameters:
1. **Shwetsrava per vagina**
   a) Amount
   b) Colour
   c) Consistency
2. Vulval itching
3. Foul smell
4. Backache
5. Pain in lower abdomen
6. Local tenderness
7. General weakness

Objective criteria:
1. Routine blood investigation: - CBC, ESR, HIV, HBsAg, VDRL, MT, RBS, TSH were advised to all the patients before and CBC, ESR after the completion of trial.
2. Complete urine examination- It was advised to all the patients to rule out any urinary tract infection.
3. pH of vagina.
4. Vaginal swab for wet mount and culture.
5. Pap smear.
6. USG of uterus and adnexae- To rule out any pelvic pathology.

Statistical evaluation of results:
Further the effect of the treatment of signs and symptoms were analyzed statistically by Mean(x), SD, and SE, ‘paired Wilcoxon signed rank test’ and ‘unpaired ONE WAY ANOVA- Kruskal-Wallis Statistic Test’ for non-parametric study. Finally result were shown in terms of probability (P) as p>0.05-Insignificant, p<0.05-Significant, p<0.01 highly significant, P<0.001- Extremely significant.

OBSERVATIONS
In present study Maximum numbers of patients i.e. 64.44% belonged to age group of 26-35 years. Maximum patients 68.89% were Hindus. Maximum 73.33% patients belonged to urban area. Maximum 97.78% patients were housewives. Maximum 28.89% patients were having Primary level education followed by 22.22% were having secondary level and 20% patient were Illiterate. Maximum patients i.e. 35.56% were from lower middle class, 100.00% patients were married. Maximum 66.67% patients were living in joint family. Maximum numbers of patients i.e.46.67% were having Mandagni, 26.67% were having Vishamagni. Maximum number of patients i.e.64.44% were vegetarian & 35.56% were having mixed diet. Maximum patients i.e.68.89%, were of normal sleep. Maximum 55.56% patient having Constipated bowel habit. Maximum 53.33% patients having burning micturition.

Maximum 62.22% were not having any addiction. In maximum 40.00% patients, charater of vaginal discharge was mucopurulent while charater of vaginal discharge was mucoid in 31.11% and in 20.00% patients had watery discharge. Only 8.89% patients had curdy white discharge. The data shows that maximum no. of the patient 42.22% had duration of illness of 1 to 5years . In the present study, maximum 88.89% of the patients had gradual onset of chief complaints. In the present study, data shows that 66.67% patients were having vulval itching, 66.67% were having foul smell discharge, 82.22% patients were having backache, 64.44% patients were complaining of pain in lower abdomen, 71.11% patients were having local tenderness and 88.89% patients were having general weakness.

Maximum patients i.e. 55.56% were of VK Prakriti. Most of the patients belonged to Madhyama Sara i.e.64.44%.Maximum patients had Madhyama Samhanana i.e. 62.22%.Maximum 68.89% were of Madhyam Pramana. Maximum 71.11% patients have Sarvarasa Satmya. Maximum patients i.e.73.33% were of Madhyam Sattva. Maximum patients i.e. 73.33% were of Madhyam Satvam. Majority of patients 75.56% have Rajasika Prakriti.

Maximum 33.33% patients had age of menarche of 13yrs, Maximum patients i.e.71.11% had regular menstruation, Maximum 60.00% patients had moderate amount of menstrual blood loss. Maximum patients i.e. 64.44% had interval of 26-30 days between two cycles, Maximum 66.67% patients had 2-4 days, Maximum 68.89% had watery flow, Maximum patients i.e. 37.78% had no complaint of pain during menses. Maximum patients 75.56% were multipara, Maximum 64.44% patients had no abortion, 17.78% patients had l
aborted, while 15.56% patients had 2 abortions. Maximum 57.78% patients were having normal (vaginal) mode of delivery. Maximum 35.56% patients adopted Surgical method of contraception, 33.33% patients had not adopted any method of contraception and 28.89% patients were using barrier method. 2.22% patient had given history of oral contraceptive pills. Majority of the patients 42.22% had frequency of intercourse 3-4 times/week.

In cervical examination, cervix was found healthy in 62.22% of patients, cervical erosion was found in 20.00% of patients while cervix was found hypertrophied in 17.78% of patient. Parous Os was found in 64% of patients. During per vaginal examination, position of uterus Anteverted Anteflexed (AVAF) was found in 95.56%, Normal size of uterus was found in 93.33% patients. The data reveals almost normal statements and probable cause could not be made. Majority of the patients i.e. 71.11% had fornix tender while 28.89% patients had fornix non tender.

In present study, 33.33% patients had physiological discharge, 40.00% patients were of E.coli infection, 17.18% patients had pus cell contain discharge and 8.89% patients were of candida albicans infection.

Vaginal pH: In present study 33.33% patients were having pH of 4.5-5.5 while 31.11 % patients were having more than 7 pH, 15.56% patients were having pH of more than 6-7, 11.11% patients were having pH of less than 4.5 and 8.89% patients were having more than 5.5-6 pH.

**RESULTS**

Table No 1: Shows the % improvement of symptoms in all groups: (Graph 1-4)

**DISCUSSION**

Shwetapradar can be effectively compared with leucorrhoea on the ground of cardinal feature “excessive vaginal discharge” as well as on the basis of similar causative factor, signs and symptoms. Leucorrhoea is a condition characterized with excessive white vaginal discharge. It may be thick or viscid and foul smelling if it is caused by some infections. Most common cause of symptomatic vaginal discharge is bacterial vaginosis (33-47%) followed by candidiasis (20-40%) and trichomoniasis (8-10%). Multiple infections can also coexist.

Considerable improvement was observed on all subjective parameter of Shwetapradar in all groups after the therapy. The improvement was because Karanja Churna and Karanja Tail Yoni Pichu Possess Katu Rasa, Laghu, Tikshna Guna, Katu Vipaka & Kaphavatashamak, Yonishodana property and due to Sushma, Vyavayi, Vikasi Guna of Karanja tail it absorb easily through the vagina & restrain the discharge. Relief in Vulval itching may be due to Kandughna, Kusthaghnna Raktashodhana property of Karanja Tail. Considerable improvement was observed in foul smell may be due to Vranasodhana, Vranaropana, Kaphavatashamak, Yonishodana, Krimighna property of the drug. Relief in backache & lower abdominal pain may be due to Vatashamak, Udavartahar, Vedanasthapanap property of Karanja Churna. Considerable improvement was observed in Local tenderness due to Shothahara, Yonidosahhriti Shwetapradarproperty of Karanja Tail. Considerable improvement was observed in General weakness because of Deepana, Pachana, Yakriduttejaka property of Karanja.

Considerable improvement in vaginal ph was observed. This is because of local effect of Karanja Taila Pichu. It normalize the activity of the glands of cervix by its own virtue of Yonivishodhana & Sukshma, Vyavayi and Vikasi guna of Taila. Considerable improvement in Wet smear pattern was observed because of Shothahara, Krimighna, Yonivishodhana property of Karanja Churna & Karanja Tail.

**Probable mode of action**

**Karanja Churna:**
1. Yonidosahhrita– Elliminate all doshas of yoni -clean the vagina
2. Restrain Srava -Tikta, Kashaya & Katu Rasa, Ruksha, Tikshna Guna property.
3. Vyadhipratyanik- Kaphavatashamak, Kaphaghnna, Shwetapradarhar vatashaman
4. Krimighna-Inhibit the growth of microorganism, reduce foul smell
5. Kandughna, Kusthaghnna -Reduce vulval itching
6. Shothahara –Anti inflammatory property- Reduce local tenderness
7. Vedanasthapanap–Reduce lower abdominal pain & backache
8. Vranasodhana, Vranaropana- Rejuvenate the epithelium
9. Deepana, Pachana, Yakriduttejaka- Amadoshapachana
10. Raktashodhana- probably to maintain and rectify the hormonal imbalance as well as cleanse the inflammatory tissues and environment.
Karanja tail Yoni Pichu:
1-Katu Rasa, Katu Vipaka- Kiedanashak, reduce vaginal discharge.
2-Laghu, Tikshna Guna, Ushana Virya, Vatakaphashamak - breakdown dosha Dushya Sannurchna.
3-Sushma Vyavayi Vikasi Guna- easily absorb through vagina
4-Yonishodan 8 - clean the vagina.
5-Krimighna, Kushtagna-eliminate microorg. & reduce vulval itching.
6-Shothhar,vedanasthapan- reduce local tenderness, backache lower abdominal pain.
7-Vranaropaan, Vranashodhan - rejuvenate epithelium.

Pichu:
Due to this oil sustain in vagina for long time. Pichu makes the muscle soft and smooth and also enhances Bala and Tanutva (thining action) so muscles stretch very well. It lubricates the whole vaginal canal due to its unctuousness and thus prevents unnecessary friction.

Comparison of therapies:
The overall effects of all the therapies on symptoms of Shwetapradar showed that, the group C (Karanja Churna and Karanja Tail Yoni Pichu both) is more effective than group A and group B i.e. Karanja Churna and Karanja Tail Yoni Pichu respectively to restrain vaginal discharge, relief in vaginal itching, foul smell discharge, local tenderness, backache and lower abdominal pain and it can be safely prescribed in management of leucorrhoea.

Comparison of overall percentage of relief in all groups:
Overall percentage of relief in group C is 66.19 %, in group B is 61.38 % and in group A is, 45.96 %. From the above point it can be concluded that the combine therapy of Karanja Churna and Karanja Tail Yoni Pichu seems to be more effective in curing Shwetapradar than single therapy of Karanja Churna and. Karanja Tail Yoni Pichu

CONCLUSION
Comparing the symptomatic improvement in all groups it was found that overall relief was highest in group ‘C’ (66.19%), followed by group ‘B’ (61.38%) and group ‘A’ (45.96%). Hence it can be concluded that combined use of Karanja Churna and Karanja Tail Yoni Pichu is more effective in managing the disease Shwetapradar.

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Table No 1: Shows the % improvement of symptoms in all groups:

<table>
<thead>
<tr>
<th>S. NO.</th>
<th>Subjective Parameters</th>
<th>RESULT IN PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>GROUP A</td>
</tr>
<tr>
<td>1. a)</td>
<td>Amount of discharge</td>
<td>52.56%</td>
</tr>
<tr>
<td>b)</td>
<td>Consistency</td>
<td>43.50%</td>
</tr>
<tr>
<td>c)</td>
<td>Color of discharge</td>
<td>47.71%</td>
</tr>
<tr>
<td>2.</td>
<td>Vulval itching</td>
<td>65.41%</td>
</tr>
<tr>
<td>3.</td>
<td>Foul smell</td>
<td>35.39%</td>
</tr>
<tr>
<td>4.</td>
<td>Backache</td>
<td>51.69%</td>
</tr>
<tr>
<td>5.</td>
<td>Pain in lower abdomen</td>
<td>61.85%</td>
</tr>
<tr>
<td>6.</td>
<td>Local tenderness</td>
<td>23.12%</td>
</tr>
<tr>
<td>7.</td>
<td>General weakness</td>
<td>32.38%</td>
</tr>
</tbody>
</table>

Average Percentage of relief

45.96%  | 61.38%  | 66.19%  

**Graph 1: Showing effect of therapy on Subjective**
Graph 2: Effect Of Therapy On Objective Parameters

Graph 3: Effect Of Therapy On The Laboratory
Graph 4: Overall Percentage Of

Group A

Group B

Group C

Group D

%