ABSTRACT

The health of nation mainly depends on the health of woman because the healthy and happy woman lays the first step of a prosperous nation. Diseases disturb the life of woman and are frequently of an extremely distressing character. Certain diseases may not be life threatening but are troublesome and irritating to an individual in day to day routine activity. One of the most common diseases of this type is *KarniniYonivyapada*. On the basis of etiopathogenesis, clinical features, complications and principles of treatment; *KarniniYonivyapada* is similar to cervical erosion. It is the replacement of the stratified squamous epithelium of the portio-vaginalis by the columnar epithelium of endocervix. It is a benign condition but if left untreated may lead up to infertility and predisposes cervical malignancy. Looking into the pathogenesis of the 'KarniniYonivyapada' it is a disease in which vitiated Dosha are Vata and Kapha while affected Dhatus is Rakta. Treatment is aimed at Vata-Kaphashamaka and Raktashodhaka. The treatment of Cervical Erosion is designed to destruct the columnar epithelium and to promote the re-epithelization of the squamous tissues. So in present trial, ApamargKshara and DhatakyadiTailaPichu were applied locally on the eroded area.

Keywords: Cervical Erosion, KarniniYonivyapada, ApamargKshara, DhatkyadiTaila.

INTRODUCTION

The health of nation mainly depends on the health of woman because the healthy and happy woman lays the first step of a prosperous nation. Diseases disturb the life of woman and are frequently of an extremely distressing character. Certain diseases may not be life threatening but are troublesome and irritating to an individual in day to day routine activity. One of the most common diseases of this type is *KarniniYonivyapada*. Acharya Charaka says that *KarniniYonivyapada* is caused due vitiation of Vata and Kapha while AcharyaSushruta said it is due to vitiation of *Kapha*. This condition can be correlated with cervical erosion. In cervical erosion though small sprouts like structures do grow, but there is no round protuberance, if it is ac-
cepted that cervix itself becomes rounded, protuberant due to congestion, hypertrophy and nabothian cysts and assumes the shape of pericarp of lotus or Karnika then congruence with classical description can be established. Although the cardinal symptom of cervical erosion is excessive vaginal discharge, but often the long term sequel of the disease like dyspareunia, abdominal pain, low backache, sickness feeling, fatigue etc. become too much troublesome to the patients.

NEED OF STUDY: There is found to be relationship between squamous metaplasia and induction of squamous cell carcinoma of the cervix. Pre-cancerous lesions often develop at the squamocolumnar junction. Hence theoretically, treating cervical erosion may prove to be protective against the incidence of cervical carcinoma.

Some sexually transmitted microorganisms such as Chlamydia trachomatis and Neisseria gonorrhoea preferentially infect glandular epithelium. Thus erosion would, by exposing this epithelium, aid an infective process. That’s why it is important to detect these lesions early enough and treat them adequately if cancer of the cervix is to be warded off.

AIMS AND OBJECTIVE:
1. To study the detailed aetiopathogenesis of KarniniYonivyapada with special reference to Cervical Erosion.
2. To evaluate the efficacy of ApamargKshara and DhatakyadiTailaPichu in the management of Cervical Erosion (KarniniYonivyapada).

MATERIAL AND METHODS
Study design- Randomized control trial, Open trial, on a single centre.
Selection of cases

Total 20 clinically diagnosed and confirmed cases of cervical erosion were selected from the O.P.D. / I.P.D. N.I.A. Hospital, Jaipur after taking informed consent.

- **Inclusion criteria**
  - Married women
  - Age in between 18 to 45 years
  - Clinically diagnosed and confirmed patient by per speculum examination and having sign & symptoms of cervical erosion
  - Patient willing to go through trial.

- **Exclusion criteria**
  - Women of age less than 18 and above the age of 45 years.
  - Pregnant women
  - Women in Bleeding phase.
  - Patient having coagulation disorders.
  - Patient having systemic disease such as Diabetes mellitus, tuberculosis etc.
  - Patient having Displacement of uterus.
  - Patient having organic pathology of uterus and adnexae like Cervical carcinoma, any malignant growth
  - HIV, VDRL, HBsAg positive patients.
  - Patient using I.U.C.D.
  - Patient will be taken into inclusion criteria after removal of I.U.C.D.

- **Criteria for withdrawal**
  Patient who discontinued the treatment themselves due to any reason or did not returned for the final follow up.

**Investigation**- Hbgm%, TLC, DLC, ESR, HIV, HBsAg, VDRL, MT and Pap’s smear for cervical cytology were advised to patients before and Hbgm%, ESR and vaginal pH before and after the completion of trial.

- **Assessment Criteria**- A special scoring pattern was applied in symptoms and associated complaints
**Statistical analysis** - Statistical study was carried out in terms of mean (x) standard deviation (S.D), standard error (S.E.) paired test(t. value) using Graph Pad Instat Software. Finally result were shown in terms of probability (P) as p>0.05-Not Significant, p<0.05-Significant, p<0.01-Highly significant.

Table No.1: Shows the pattern of clinical recovery in various ‘Subjective Parameters’ in 20 patients treated with Apamarg Kshara & Dhatakyadi Tail Pichu

<table>
<thead>
<tr>
<th>S No</th>
<th>Symptoms</th>
<th>Mean</th>
<th>SD</th>
<th>Dif.</th>
<th>% of Change</th>
<th>SE</th>
<th>W</th>
<th>P</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vaginal discharge</td>
<td>2.25</td>
<td>0.83</td>
<td>0.70</td>
<td>1.55</td>
<td>0.18</td>
<td>171</td>
<td>&lt;0.01</td>
<td>H.S.</td>
</tr>
<tr>
<td>2</td>
<td>Dyspareunia</td>
<td>1.00</td>
<td>0.60</td>
<td>0.45</td>
<td>0.55</td>
<td>0.14</td>
<td>55</td>
<td>&lt;0.01</td>
<td>H.S.</td>
</tr>
<tr>
<td>3</td>
<td>Pruritus Vulvae</td>
<td>0.65</td>
<td>0.60</td>
<td>0.20</td>
<td>0.45</td>
<td>0.14</td>
<td>36</td>
<td>&lt;0.01</td>
<td>H.S.</td>
</tr>
<tr>
<td>4</td>
<td>Low Backaches</td>
<td>2.05</td>
<td>0.62</td>
<td>1.25</td>
<td>0.80</td>
<td>0.14</td>
<td>105</td>
<td>&lt;0.01</td>
<td>H.S.</td>
</tr>
<tr>
<td>5</td>
<td>Lower Abdominal pain</td>
<td>1.30</td>
<td>0.81</td>
<td>0.65</td>
<td>0.65</td>
<td>0.18</td>
<td>55</td>
<td>&lt;0.01</td>
<td>H.S.</td>
</tr>
<tr>
<td>6</td>
<td>Burning Micturation</td>
<td>0.50</td>
<td>0.60</td>
<td>0.10</td>
<td>0.40</td>
<td>0.13</td>
<td>28</td>
<td>&lt;0.05</td>
<td>S.</td>
</tr>
<tr>
<td>7</td>
<td>Sickness Feeling</td>
<td>1.50</td>
<td>0.83</td>
<td>0.95</td>
<td>0.55</td>
<td>0.18</td>
<td>28</td>
<td>&lt;0.05</td>
<td>S.</td>
</tr>
<tr>
<td>8</td>
<td>Post Coital Bleeding</td>
<td>0.40</td>
<td>0.66</td>
<td>0.10</td>
<td>0.30</td>
<td>0.15</td>
<td>10</td>
<td>&gt;0.05</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

W= Wilcoxon matched-pairs signed-ranks test  
H.S. = Highly Significant  
S. = Significant  
N.S. = Non Significant

Table No. 2: Shows clinical recovery in various ‘Objective Parameters’ in 20 patients treated with Apamarg Kshara & Dhatakyadi Tail Pichu

<table>
<thead>
<tr>
<th>S No</th>
<th>Symptoms</th>
<th>Mean</th>
<th>SD</th>
<th>Dif.</th>
<th>% of Change</th>
<th>SE</th>
<th>W</th>
<th>P</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vaginal discharge P/S</td>
<td>1.90</td>
<td>0.60</td>
<td>0.45</td>
<td>1.45</td>
<td>0.14</td>
<td>210</td>
<td>&lt;0.01</td>
<td>H.S.</td>
</tr>
<tr>
<td>2</td>
<td>Oozing of blood from erosion</td>
<td>1.35</td>
<td>0.75</td>
<td>0.50</td>
<td>0.85</td>
<td>0.17</td>
<td>91</td>
<td>&lt;0.01</td>
<td>H.S.</td>
</tr>
<tr>
<td>3</td>
<td>Area of eroded cervix</td>
<td>1.95</td>
<td>0.60</td>
<td>0.50</td>
<td>1.45</td>
<td>0.14</td>
<td>210</td>
<td>&lt;0.01</td>
<td>H.S.</td>
</tr>
<tr>
<td>4</td>
<td>Cervical Tenderness</td>
<td>0.40</td>
<td>0.49</td>
<td>0.05</td>
<td>0.35</td>
<td>0.11</td>
<td>28</td>
<td>&lt;0.05</td>
<td>S.</td>
</tr>
</tbody>
</table>
W= Wilcoxon matched-pairs signed-ranks test  
H.S. = Highly Significant  S. = Significant  N.S. = Non Significant

Table No 3: Showing clinical recovery in various ‘Laboratory Investigation’ of Cervical Erosion in 20 patients treated with Apamarg Kshara and Dhatakyadi Tail Pichu

<table>
<thead>
<tr>
<th>S No</th>
<th>Symptoms</th>
<th>Mean</th>
<th>Dif.</th>
<th>% of Change</th>
<th>SD</th>
<th>SE</th>
<th>t</th>
<th>P</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>BT</td>
<td>AT</td>
<td></td>
<td>SD</td>
<td>SE</td>
<td>t</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Vaginal pH</td>
<td>6.55</td>
<td>5.33</td>
<td>1.25</td>
<td>0.55</td>
<td>0.12</td>
<td>10.16</td>
<td>&lt; 0.0001</td>
<td>H.S.</td>
</tr>
<tr>
<td>2</td>
<td>Hbgm%</td>
<td>11.32</td>
<td>11.40</td>
<td>0.075</td>
<td>1.11</td>
<td>0.25</td>
<td>0.3016</td>
<td>&gt;0.05</td>
<td>N.S.</td>
</tr>
<tr>
<td>3</td>
<td>ESR</td>
<td>18.20</td>
<td>17.05</td>
<td>1.150</td>
<td>12.18</td>
<td>2.72</td>
<td>0.4223</td>
<td>&gt;0.05</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

Table No 4: Shows the % improvement of signs and symptoms

<table>
<thead>
<tr>
<th>CARDINAL SYMPTOMS</th>
<th>% Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaginal discharge</td>
<td>68.88%</td>
</tr>
<tr>
<td>Dyspareunia</td>
<td>55%</td>
</tr>
<tr>
<td>Pruritus Vulvae</td>
<td>69.23%</td>
</tr>
<tr>
<td>Low Backache</td>
<td>39.02%</td>
</tr>
<tr>
<td>Lower Abdominal pain</td>
<td>50%</td>
</tr>
<tr>
<td>Burning Micturation</td>
<td>80%</td>
</tr>
<tr>
<td>Sickness Feeling</td>
<td>36.67%</td>
</tr>
<tr>
<td>Post coital Bleeding</td>
<td>75%</td>
</tr>
<tr>
<td>Vaginal discharge by P/S</td>
<td>76.32%</td>
</tr>
<tr>
<td>Oozing of blood from cervical erosion</td>
<td>62.96%</td>
</tr>
<tr>
<td>Area of eroded cervix</td>
<td>74.36%</td>
</tr>
<tr>
<td>Cervical Tenderness</td>
<td>87.5%</td>
</tr>
<tr>
<td>Nabothian cyst</td>
<td>33.34%</td>
</tr>
</tbody>
</table>

Average Percentage of Relief 47.32%

Table No 5: Overall Effect Of Therapy

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Effect of therapy</th>
<th>Result</th>
<th>No. of patients</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No relief</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Mild relief</td>
<td>25%</td>
<td>01</td>
<td>5%</td>
</tr>
<tr>
<td>3</td>
<td>Moderate Relief</td>
<td>26-50%</td>
<td>05</td>
<td>25%</td>
</tr>
<tr>
<td>4</td>
<td>Significant relief</td>
<td>51-75%</td>
<td>10</td>
<td>50%</td>
</tr>
</tbody>
</table>
DISCUSSION

Probable mode of action of Kshara
There are two basic principles given by Acharyas for the treatment of Karnini which are:

- **KaphaharaChikitsa**

From the treatment point of view i.e. KaphaharaChikitsa, Kshara has property of Kaphaghna due to its UsnaVirya, KatuVipak, Katu Rasa And Laghu, TikshnaGuna. Due to Pachana, Vilayan, KaphaVataShamakaKarma, Ksharais responsible for SampraptiVighatana of KarniniYonivayapada as vitiation of vatakaphadosha are responsible for this disease.

- **ShodhnaDravya**

Ksharais mentioned to have Shodhanproperty. Its able to remove Mala from body to fulfill the definition of ShodhnaDravya.

Chemical analysis of ApamargaKshara:
The ApamargaKshara was found strongly alkaline in reaction (pH = 10.44) and hygroscopic. The result of this study were pH = 10.44, acid radicals as Co₃⁻, So₄⁻, Cl⁻ ,phosphate as P₂O₅ and basic radicals Ca⁺⁺, Mg⁺⁺, Na⁺, K⁺, Fe⁺⁺⁺ etc.

Strong alkaline nature of Kshara was responsible for the corrosive action i.e. destruction (slough off) of columnar epithelium, after destruction of this epithelium rep epithelisation of squamous epithelium occurred easily.

Probable mode of action of Dhatakyadi-taila:
Once the columnar epithelium is replaced, the secretory activity of glands subsides which decrease the vaginal discharge and thus vaginal pH is also reduced which favors squamous metaplasia. There are some research works also done to prove the pharmacological activity of contents of DhatakyadiTaila. Various clinical and experimental studies reveal that Anti-inflammatory, Anticytotoxic and Anti-microbial activities were present in almost 80-90% of drugs of DhatakyadiTaila. Anti-inflammatory, Anticytotoxic effect of most of the ingredients in the drug help in proper healing and decrease the swelling and the redness of the cervix. Antibacterial, Antifungal, Antiseptic properties of the ingredients may help in preventing the foreign organisms which prevent the regeneration of the squamous epithelium.

SUBJECTIVE PARAMETERS:

1. **Amount of Vaginal discharge**: It was significantly reduced because Apamarghas Vata and KaphanashakaGuna.

2. **Dyspareunia**: It may be concluded that anti-inflammatory and analgesic property of Apamarghelped in improvement in dyspareunia.

3. **Pruritis Vulvae**: Anti-microbial and antifungal property of Apamarg help in improvement of this symptom.

4. **Low Backache**: Improvement may be probably due to virtue of Ushna, TikshnaGunaof Kshara and VatashamakaGuna of Apamarg. Analgesic activities present in DhatakyadiTaila gives considerable relief in lower backache. Also because of the anti-inflammatory property of the drug, congestion in the nearby organs is reduced and so the back pain is also relieved.

5. **Lower Abdominal pain**: Apamarg Ksha-ra known to be alleviating diseases like Gulma, Shoold which caused relief in lower abdominal pain also.
6. Burning micturation: ApamargKshara is said to cure Shwasa which is a “Pitta SthanaSmudbhavVyadhi”. So, Apamarg can be concluded to cure Pittadushti causing burning micturition.

7. Sickness feeling: This is due to combined effect of Kshara and DhatakyadiTaila that decreased amount of vaginal discharge which is also responsible for generalized body weakness i.e. sickness feeling.

8. Post Coital Bleeding: Improvement in patients was found that as Apamarg has significant result in wound healing by effecting Wound Contraction, Epithelization Time, Histology And Total DNA Content. So by increasing tensile strength of cervical epithelium Apamarg assumed to have better result in wound healing.

OBJECTIVE PARAMETERS

1. Amount of Vaginal discharge P/S: The vaginal discharge minimize due to decreased hyper secretion of cervical glands after the healing of erosion. ApamargKshara is regarded as Tikshna which helps in destructing secretory columnar epithelium.

2. Oozing blood from erosion on rubbing with gauze piece: Improvement was seen as wound healing property of Apamarg.

3. Area of eroded cervix: Healing of cervical erosion is measured by destruction of columnar epithelium which is good in case of ApamargKshara due to its TikshnaGuna.

4. Cervical Tenderness: ApamargKshara have Shoolnashan property which helps in cure of cervical tenderness.

5. Nabothian Cyst: As the symptom present was present in only four patients, that’s why the improvement can’t be called significant.

CHANGES IN LABORATORY INVESTIGATION

1. Haematological Investigations:

   Hb% & ESR: No significant change was found in patients.

2. Vaginal pH:

   This is because DhatakyadiTailaPichu which being used with ApamargKshara, it normalize the activity of the glands of cervix by its own virtue of Yonivishodana.

CONCLUSION

- The disease KarniniYonivyapada described in Ayurveda classics can be considered as the clinical congruence of cervical erosion.

- BahirparimarjanaChikitsa in the form of ApamargKshara and DhatakyadiTailaPichu is highly effective in disintegration of the pathogenesis of the disease.

- ApamargKshara and DhatakyadiTailaPichu is effective in removing of karnika (nabothian follicles) and managing the associated chronic cervicitis.

- There was not increased vaginal discharge found after application of Kshara which is the commonest side effect of cauterization. No adverse effect or complications is produced with the use of this treatment.

REFERENCES

1. CharakaSamhita, Comm. Shri SatyanarayanaShastri with vidyotinihindi commentary by Pt. KashinathShastri & Dr. Gorakhnath Chaturvedi, Published by Chaukhamba Bharti Academy, Varanasi, pp-841


3. Oasis Test House limited an 'ISO 9001'
certified lab Jaipur ,Dr. Gupta Pragya (2012) Clinical Evaluation of the Efficacy of Ksharaa Karma with Apamarga-Ksharaa and JatyadiTailaPichu in the management of Cervical Erosion (KarniniYonovyapad), P.G. Dept. of Prasuti-Stree Roga, N.I.A.,

4. **Dhataki:** Dhataki flowers found to have antibacterial activity Parekh, Jigna and Chanda, Sumitra. *Invitro* antibacterial activity of the crude methanol extract of Woodfordiafruticos Kurz. Flower (Lythraceae). *Braz. J. Microbiol.* [Online]. 2007, vol.38, n.2, pp. 204-207.ISSN 1517-8382.  **2. Amalaki:** Emblica fruit found to have very potent anti bacterial activity (Vinayagamorthy, 1982) and the water fraction of the methanol extract of leaves was effective in rat paw inflammation (Summanen et al.,1990)  **3. Madhuka:** The anti-inflammatory activity of glycyrrretic acid and its diaacetate was similar to that of hydrocortisone in albino rats (Tangari et al.,1964)  **4. Utpala:** The extract of defatted fruits of Nympheastellatala has a significant analgesic activity. (Singh et al., 1977)  **5. Jambu:** The anti-inflammatory activities are reported. (Mahapatra et al., 1986)  **6. Lodhra:** It is proved very effective in the management of kaphajyonivayapad (leucorroe) in aclinical study (Jain T.1989)  **7. Katphala:** The extract of stem bark showed analgesic action in rats by tail flickering method. (Gupta et al., 1982)  **8. Dadima:** Antibacterial activity of fixed oil from seeds and stem bark extract is reported. (Chopra et al., 1960 &Trivedi and Kazmi, 1979) Antifungal activity of the extracts of bark, fruits, pulp, flowers and leaves is reported. (Charya et al., 1979)


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