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MANAGEMENT OF SWETAPRADARA (LEUCORRHOEA) WITH SPECIAL REFERENCE TO CERVICAL EROSION WITH TOPICAL APPLICATION OF GUDUCHI SATWA (TINOSPORA CORDIFOLIA)

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ABSTRACT

Swetapradar (leucorrhoea) is a common gynecological disorder/symptom experienced by most of the women in their reproductive life. Though there are so many causative factors for it (leucorrhoea), erosions of cervix is said to be an important one. Cervical erosion is absolutely a benign condition where the squamous epithelium of the ecto-cervix is replaced by the overgrowth of the columnar epithelium from the endocervix. This occurs during the hyper estrogenic condition. Most of the time it causes excessive vaginal discharge along with the symptoms of pain, tenderness, itching sensation, backache, infertility etc. According to modern medical science surgery is the one and only treatment of cervical erosion such as cauterization, cryosurgery, laservapourisation etc. Ayurved the science of life provides some alternative treatment such as *Uttarvasti, pichu, varti, dhupan, dhavan (prakshalan)* and *avachurnan* (dusting). The present study was taken for a trial to evaluate the efficacy of *Guduchi satwa* (by *avachurnana* /dusting) on cervical erosion as *guduchi* is known for its *Tikta, Kasaya ras, grahi, tridosha samak, Vedana Sthapan, Daha prasaman, Krumighna* etc. properties. Also recent studies have proved its anti-inflammatory and anti-neoplastic action.

KEYWORDS:- *Swetapradar, Avachurnana, Guduchi Satwa,* PCOS, Dusting.

INTRODUCTION

Literally the word *pradara*[1] denotes excessive flow or any discharge through any passage or part of the body. But in general practice it is used to denote vaginal discharge exclusively. So *swetapradara* refers to vaginal whitish discharge which can be co-related to leucorrhoea. With critical analysis of references available in *Ayurvedic* texts, it is evident that the *swetapradara* is a symptom of various gynaecological disorders or *yonisrava* in non – specific conditions.

Amongst many causes cervical erosion is an important one. It is a condition where the squamous epithelium of the ectocervix is replaced by the overgrowth of the columnar epithelium from the endocervix. This is absolutely a benign condition and most of the time it causes excessive vaginal discharge along with the symptoms of pain, tenderness, itching sensation, backache, infertility etc. Also it becomes the seat for chronic infection which may precipitate in to several other diseases.

In modern medical science treatment for cervical erosion is not much yielding. There are some surgical procedures such as thermal cauterization, cryosurgery, laser vaporization etc. which are not free from side effects and complications. For treating infection, antibiotics and other chemotherapies are applied. The whole world is now getting scared of antibiotics as well as chemotherapies and looking for an alternative methods, as antibiotics also kill the bacteria those are friendly to our body.

In the ancient *Ayurvedic* classics several medications have been described for both internal as well as external application. *Uttarbasti, pichu, varti, dhupan and dhaban (Prakshalan)* are some procedures along with *yoni abachurnana* (Vaginal/ Cervical dusting).

The present study I have taken for a trial to evaluate the efficacy of *Guduchi satwa* on cervical erosion as *Guduchi* is known for its *tikta, kasaya rasa, grahi, tridosha samaka, vedanasthapan, dahaprasaman, Krumighna* etc. properties. Also recent studies have proved its anti-inflammatory and anti-neoplastic action.

AIMS AND OBJECTS

To evaluate the efficacy of *Guduchi satwa on swetapradara* (Leucorrhoea) which is a cardinal feature in cervical erosion as *Guduchi*[3] is known to be of *Tikta, Kasaya Rasa, Tridoshasamaka, Dahaprasaman , Vedanasthapan, Grahi, Krumighna* etc. properties.

MATERIALS AND METHODS

The study was carried out in the post graduate dept. of *Prasuti Tantra and Stree Rog*, GAM and Hospital, Puri. 60 cases of white discharge per vaginum were screened from the O.P.D. and I.P.D. of G.A.M., Puri. Finally 40 cases were selected according to the framed selection criteria.

Selection of cases

Female Subjects belonging to different reproductive age group were included in this study.

Inclusion criteria

The selection was done based on the presence of cervical erosion with its cardinal features like –white discharge. Pain (dyspareunia), tenderness, itching, cervical edema etc.

Exclusion criteria

The cases of preovulatory leucorrhoea, unmarried women, case having any systemic disease likely to influence the course of the disease or its follow up as anemia, tuberculosis, hypertension, acute chronic respiratory disease, hypothyroidism, hyperthyroidism, positive pap smear, positive V.D.R.L., diabetic cases, Hb % less than 7 gm% and presence of other infective organisms. The patients having pregnancy, history of recent delivery (during *sutika kala)*, recent abortion, suffering from prolapse or any organic pathology of uterus are also checked up and verified for exclusion..

Study design

It is a comparative clinical trial on 40 numbers of cases, divided into two group i.e. trial and placebo having 20 no. of cases in each group. The selection was made randomly. All the patients were recommended similar *ahara* and *vihara*.

TG_1 – The trial group was treated with trial drug *Guduchi satwa* after irrigating the vaginal canal with distilled water.

TG_2 _ The placebo group was treated with Distilled water only.

AT- After treatment

BT – Before treatment

Vs – Verses

TG_1 BT Vs AT - Efficacy of trial drug was assessed.

TG_2 BT Vs AT - Efficacy of placebo was assessed.

Preparation of trial drug

Guduchi stawa is the essence or active part of *Tinospora cordifolia* and is a starchy material extractable through water is prepared as described in text at the Pharmacy of GAM, Puri.

Method of administration of drug

Trial group

After selecting the patients for trial group the trial drug was applied daily to all the patients for 15 days after cessation of menstrual cycle. The patients were placed in lithotomy position. After irrigating the vaginal canal with distilled water cervix was well exposed with the help of Sim's double bladed vaginal speculum and anterior vaginal wall retractor and the eroded portion of the cervix was dusted with fine powder of *Guduchi satwa*.

Placebo group

In the patients under placebo group only vaginal irrigation (*Yoni Prakshalan*) was done with distilled water for the same duration of treatment as the trial group.

No oral Medication was given during the course of treatment and patients were advised to continue the normal diet and regimen for both the groups.

Duration of treatment

The duration of treatment for both the groups was 15 days after cessation of menstrual cycle.

Assessment of cases

The assessment was carried out in weekly interval. The cases were assessed by subjective and objective signs and symptoms, before and after treatment. These are

Parameters BT AT Remarks

1. Discharge
2. Cervical Erosions
3. Pain
4. Tenderness
5. Itching
6. Vaginal Smear Exam. Epi. Cell
7. Vaginal Smear Exam. Pus. Cell
8. Urine Exam. Pus Cell
9. Urine Exam. Epi. Cell

10. Pallor

Toxicity profile

During the course of treatment with the trial drug, attention was given to note the development of any adverse effect, toxicity or intolerance etc.

Statistical assessment of result

The mean value ± S.D. before treatment of each sign and symptom was compared with that of the after treatment, the paired t- test was used for the purpose of test of significance. The efficacy of the trial drug and placebo to different signs and symptoms were assessed through 'P' value.

Clinical assessment of result

The clinical assessment of result was done basing upon the following criteria.

1. **Cure:** 100% free from cardinal and associated sign and symptoms.
2. **Maximum improvement:** More than 75% improvement of the cardinal sign and symptoms viz, cervical erosion, discharge, pain tenderness, itching and cervical oedema.
3. **Moderate improvement:** 50 % to 75 improvement of the above mentioned cardinal sign and symptoms.
4. **Mild improvement:** 25% to 50% improvement of the cardinal sign and symptoms.
5. **No improvement:** Less than 25% or no improvement of cardinal sign and symptoms.

RESULTS

Statistical Analysis Showing the effectiveness of the TRIAL DRUG to different sign and symptoms.

In the statistical analysis, the mean ± S.D. Before treatment of different sing and symptoms are compared with mean ± S.D. after treatment.

In case of discharge the mean ± S.D. Before treatment was 2.3 ± 0. 458, after treatment it reduced to 0.25± 0.43. The test of significance shows that the trial drug is highly significant and effective to give relief from discharge with p-value < 0. 001.

In case of cervical erosion the meant ± S.D. Before treatment was 1.85 ± 0.72 after treatment it reduced to 0.35 ± 0.47. The test of significance shows that the trial drug us significantly effective to reduce the cervical erosion, with P- value < 0.001

In case of pain, the mean ± S. D. Before treatment was 1.133 ± 0.339, after treatment it reduced to 0.2 ± 0.4 The test of significance shows that the trial drug is significantly effective to reduce pain with P –value < 0.001.

In case of tenderness the mean ± S.D. Before treatment was 1. 70 ± 0.66, after treatment it reduced to 0.23 ± 0.42. The testy significance shows that the trial is highly significant and effective to reduce tenderness with P -value < 0. 001.

In case of Itching the mean ±S.D. Before treatment is 1.5 ± 0.5, after treatment it reduced to 0.5 8 ± 0.49. The test of significance shows that the trial drug is highly significant and effective to reduce itching with P-value < 0.001.

In case of epithelial cell (vaginal smear exam.) the mean ± S.D. Before treatment was 1. 6 ± 0.583, after treatment it reduced to 0.5 ± 0.59 .The test of significance shows that the trial drug is significantly effective to reduce epithelial cell with P- value < 0.001.

In case of pus cell (vaginal smear exam.) the mean ± S.D. Before treatment was 1. 6 ± 0.66, it reduced to 0.45 ± 0.49. The test of significance shows that the trail drug is highly significant and effective to reduce pus cell with P-value < 0.001.

In case of pus cell (Urine exam.) the mean ± S.D. Before treatment was 1. 65 ± 0.47, it reduced to 0.75 ± 0.62. The test of significance shows that the trial drug is significantly effective to reduced pus cell with P-value < 0.001.

In case of Epithelial cell (Urine exam.) the mean ± S.D. Before treatment was 1.65 ± 0 . 57 it reduced to 0.8 ± 0.67. The test of significance shows that the trial drug is highly significant and effective to reduce the Epithelial Cell with P-value <0.001.

In case of pallor the meant ± S.D. Before treatment it reduced to 1.5 ± 0.89. The test of significance shows that the trial drug is significantly reduces the pallor, with P-value < 0.01

Sl. No.	Sign and Symptoms	Mean ±SD	d. f.	T-Value	P-Value	Remarks
01	Discharge	2.3±0.458 BT 0.25±0.433AT	19	18.70	<0.001	Highly Significant at 0.1% level
02	Cervical Erosions	1.85±0.726 BT 0.35±0.476 AT	19	11.36	<0.001	Highly Significant at 0.1% level
03	Pain	00.13±0.339 BT	14	14.46	<0.001	Highly Significant

		0.2±0.4 AT				at 0.1% level
04	Tenderness	1.70±0.66 BT 0.23±0.42 AT	16	12.14	<0.001	Highly Significant at 0.1% level
05	Itching	1.5±0.5 BT 0.583±0.493 AT	11	6.43	<0.001	Highly Significant at 0.1% level
06	Vaginal Smear Exam. Epi. Cell	1.6±0.583 BT 0.5±0.59 AT	19	7.93	<0.001	Highly Significant at 0.1% level
07	Vaginal Smear Exam. Pus. Cell	1.6±0.663 BT 0.45±0.497 AT	19	9.02	<0.001	Highly Significant at 0.1% level
08	Urine Exam. Pus Cell	1.65±0.476 BT 0.75±0.62 AT	19	13.41	<0.001	Highly Significant at 0.1% level
09	Urine Exam. Epi. Cell	1.65±0.572 BT 0.8±0.678 AT	19	10.86	<0.001	Highly Significant at 0.1% level
10	Pallor	2.05±0.621 BT 1.5±0.89 AT	19	3.53	<0.01	Significant at 0.1% level

Statistical Analysis Showing the effectiveness of the PLACEBO to different sign and symptoms.

In case of discharge, the mean ± S.D., Before treatment was 2 ± 0.63, after treatment it reduced to 1.65 ± 0.65. The test of significance shows that the placebo is significantly effective to reduce the discharge with P- value < 0. 01.

In case of cervical erosion the mean ± S.D. Before and after treatment was same i.e. 1.4 ± 0.48. The test of significance shows placebo is not effective in cervical erosion.

In case of pain the mean ± S.D. Before treatment was 1.42 ± 0. 49 after treatment it reduced to 1.35 ± 0.61. The test of significance shows that placebo is not significantly effective to reduce the symptom with P- Value > 0.05.

In case of tenderness the mean ± S.D. Before treatment is 1.41± 0.49, after treatment it reduced to 1.25 ± 0.59. The test of significance shows that placebo is not significantly effective to reduce tenderness with P- Value > 0.05.

In case of Itching, the mean ± S.D. Before treatment was 1.12 ± 0.33 after treatment of reduced to 1 ± 0.35. The test of significance shows that placebo is not significant to reduce itching with P- Value > 0.05.

In case of epithelial cell (vaginal smear exam) the mean ± S.D. Before treatment was 1. 7 ± 0.78, after treatment it reduced to 1.45 ± 0.86. The test of significance shows that the placebo is significantly (just significant) effective to reduce the epithelial cell with P-value < 0. 05.

In case of pus cell (vaginal smear exam.) the meant ± S.D. Before treatment was 1.7 ± 0. 71, after treatment it reduced to 1.6 ± 0.8. The test of significance shows that placebo is not significantly effective reduce pus cell with P-value > 0. 05.

In case of pus cell (Urine exam.) the mean ± S.D. Before treatment was 1. 4 ±0.489, after treatment it reduced to 1.3 ± 0.04. The test of significance shows that placebo is not significantly effective to reduce the pus cell in urine with P- value > 0. 05.

In case of Epithelial cell (Urine exam.) the mean ± S.D. Before treatment was 1.3 ± 0. 458, after treatment it reduced to 1.2 ± 0.6. The test significance shows that placebo is not significantly effective to reduce the epithelia cell in urine with P- value > 0.05.

In case of pallor the mean ± S.D. Before treatment was 1. 9 ± 0.7 after treatment it reduced to 1.85± 0.65. The test of significance shows that the placebo is not significantly effective to reduce the pallor with P- value > 0.05.

Sl. no.	Sign and Symptoms	Mean ±SD	d. f.	T-Value	P-Value	Remarks
01	Discharge	2±0.63 BT 1.65±0.65 AT	19	3.28	<0.01	Significant at 1% level
02	Cervical Erosions	1.4±0.489 BT 1.4±0.489 AT	19	____	____	Placebo do not change the symptoms
03	Pain	1.42±0.49 BT 1.35±0.61 AT	13	1.047	>0.05	Insignificant
04	Tenderness	1.41±0.49 BT 1.25±0.59 AT	11	0.55	>0.05	Insignificant
05	Itching	1.12±0.33 BT 1±0.35 AT	15	1.45	>0.05	Insignificant
06	Vaginal Smear Exam. Epi. Cell	1.7±0.78 BT 1.45±0.86 AT	19	2.60	>0.05	Insignificant
07	Vaginal Smear Exam. Pus. Cell	1.7±0.714 BT 1.6±0.8 AT	19	1.49	>0.05	Insignificant
08	Urine Exam. Pus Cell	1.4±0.489 BT 1.3±0.045 AT	19	1.49	>0.05	Insignificant
09	Urine Exam. Epi. Cell	1.3±0.458 BT 1.2±0.6 AT	19	1.49	>0.05	Insignificant
10	Pallor	1.9±0.7 BT 1.85±0.653 AT	19	1.03	>0.05	Insignificant

D. F. - Degree of freedom T- Test for significance

BT- Before treatment AT- After treatment

P- Probability SD- Standard Deviation

Sl. No.	Clinical assessment	Trial group	%	Placebo group	%
01	Cure	05	25	00	00
02	Max. Improvement	06	30	00	00
03	Mod. Improvement	05	25	01	05
04	Mild Improvement	04	20	01	05
05	No Improvement	00	00	18	90

The clinical assessment of result shows that after treatment under trial group out of 20 cases, 5(25%) cases achieved cure, 6 (30%) cases maximum improvement, 5 (25%) cases moderate improvement and 4 (20%) cases got mild improvement whereas under placebo group 1(5%) patient got moderate improvement and mild improvement is also achieved by only 1(5%) patient and 18(90%) patient got no improvement.

DISCUSSION

In the ancient *Ayurvedic* classics the gynaecological disorders has been described under the headings of *yoni vyapad, Guhya roga* and *Asrigdar*. *Swetapradara* is also a common gynaecological disease experienced by most of the women in her reproductive life. But direct reference about the disease is not available in the three basic *Ayurvedic* classics *(Brihattrayi).* Only there are some references of white discharge found in *Yogratnakar, Bhavaprakash* and *Sarangdhar samhita* in the context of *pradara* and *somaroga*. However in *chikitsasthan* 30th chapter *Charaka* has mentioned the word '*Pandura Asrigdara'*, which is commented as *pandura pradara*[4,5] or *swetapradara* by *Chakrapan*i. Also there are some references like *picchila* and *sweta sraba* from vagina found in *sleshmala yoni vyapada* i.e. *Atyanada, Acharana, Aticharana, Sleshmala* and *karnini yoni* described in *Susruta samhita* and also *kapha vata* vitiated *yonivyapada (Upapluta)* of *Charaka* and others.

Considering the etiological factors as well as sign and symptoms as mentioned in *Ayurvedic* texts *Swetapradara* is a condition where *kapha vata* are the predominant *dosha* and there is flow of *sweta, picchila srava* (white discharge). This can be correlated to the disease leucorrhoea (meaning – white discharge) of modern medical science. Though a number of causative factors has been described still erosion of cervix is said to be an important cause of leucorrhoea specially during the active reproductive age.

Cervical erosion is a condition where columnar epithelium of the cervical canal proliferates downwards and encroaches over the squamous epithelium of the portiovaginalis around the external os. It is said to be influenced by the over activity of the ovarian hormone, specially the oestrogen.

Prof. P.V. Tiwari has compared the *karnini yoni vyapad* with cervical erosion. Some of the Hindi commentators described the condition as *Garbhasaya greevagata aparadana*, while some modern commentators has been described it as *Grabhasaya greevagata vrana* (ulcer). Though cervical erosion is not an ulcer, however it seems to appear like an ulceration in the cervix specially when it is infected.

As regards the treatment of *Swetapradara* described in *Ayurveda*, *Maharshies* had been given emphasis to both oral as well as local medication. *Uttarabasti, Dhupan, Dhaban, Pichu, varti* and *avachurnana* are some of the local vaginal applications described for the treatment of *Swetapradara* with erosion of cervix.

Considering the effectiveness of local applications for the treatment of *Swetapradara* (Leucorrhoea), Yoni *avachurnana* of *Guduchi satwa* has been selected for the present study. The process of *avachurnana* is very easy. *Guduchi* is also a very common and easily available herbal drug. The properties of *Guduchi* are *Tikta, Kasaya, Tridoshasamaka, Vedanasthapan, Dahaprasaman, Krumighna, Pittasarak, Samgrahi, Kusthaghna, yoniroganasak* etc. Recent studies have also proved that it is anti-inflammatory, anti-leprotic, immuno-modulatory and antineoplastic in action. Keeping in view of the above properties like *tikta –kasaya, vedanasthapan, Dahaprasaman, pittasarak, grahi* etc. the drug has been choosen for the treatment of *Swetapradara* (Leucorrhoea) caused by cervical erosion.

The trial drug *Guduchi satwa* was used in the form of *avachurnana* i.e cervical dusting for a period of 15 days after cessation of menstruation. During the application no internal medicine was used.

In the present study majority of cases were of reproductive age (20-30 yrs.) and multiparous. It indicates that *swetapradara* with cervical erosion is more prominent during this reproductive age. It is well known that *swetapradara* with erosion of cervix consists of endometrial cervical discharges including vaginal and mucosal exudates. It is also a known

fact that this disease is highly active in reproductive life under the influence of estrogen. As age advances the organs become less active causing fall in the incidence.

In the present study maximum cases were having parity of 2 or more than 2 children's. This shows multiparous women were suffering more. So it can be revealed that high parity is also a cause for the cervical erosion.

More the abortion, more injurious to the cervix, endometrium or may be myometrium which may leads to serious complications and abnormal discharges from uterus. The surgical devices may create injury in the cervix as well as in the endocervical canal which stimulate the causative factor of cervical erosion.

In the present study 15 cases were registered where haemoglobin estimation was 8-10 gm%. It indicates inadequate diet, multiparity and prolonged lactation may be stamped as responsible for the low grade anaemia. The anaemia is also plays an important role as a causative factor of *swetapradara.*

Regarding pH of the vaginal canal it was found acidic in almost all cases shown in the table no-13. After the treatment the vaginal pH were in similar range which indicates drastic changes in pH does not takes place which reflect the same in cervical pH also. It indicates that house wives having strenuous and vigorous hard work in their daily routine life, having malnourishment and psychomotor ailment may suffer from this disease.

In this study *swetapradara* was seen to be more common in lower and middle classes income group people. This study co-incide with the finding of previous workers *(Kulkrni RN et. al 2002).* This may be explained in two different ways, first one is Unrecognized psychological fear of being pregnant for successive pregnancy and secondly to establish how importance amongst her family members. In our hospital generally people from rural areas come for general check-up and belong to mentioned group. We find rarely from high economic group because they generally prefer to consult private practitioner or in nurshinghome.

This study refers that majority of cases having unhygienic mode of living and were not using sanitary pads as required, which influences her economic status and raising the number of patients. This poor economic condition may influence wide range of hazards to create psychological social and economical upset of the house wives which is an important causative factor of this disease.

As mentioned earlier *swetapradara* is an ailment of chronic in nature, generally chronic patients of remote area express their ailment before their husbands or guardian in late and subsequently they come to the hospital in late to attend a physician. So in this study more chronic cases were registered than the new cases for treatment.

Apart from regularly menstruating ladies, patient with pain and irregular menstruation were also found in this study. It is revealed that oestrogenic factor may play an important role for this disease.

Regarding past illness of the patient it is found that there is no relation between past illness and present complaint. Regarding the family planning measure it is observed that 10-(25%) patients were in permanent sterilization, 6 (15%) were in oral pill, 3(7.5%) were in CuT and rest 21 (52.5%) patients were without any family planning measure.

During trial drug administration percentage of improvement in the sign and symptoms such as pain, tenderness and itching sensation are 82. 35%, 86.20% and 61.11% respectively in trial group and 5%, 11.76% and 11.11% respectively in placebo group. The marked improvement in trial group may be due to the anti-inflammatory and anti-histaminic property of Guduchi.

Regarding the discharge P/V it is observed that maximum improvement is in trial group and mild improvement in placebo group. The mild improvement in placebo group might be due to regular washing of vagina and cervix with distilled water.

In the present study at the time of registration as per the inclusion criteria 13 patients were found having cervical oedema which is identical to eroded cervix is protagonists of this theory that 85% of women have suffered from chronic inflammation of cervix, which is highly improbable, found in those patients having cervicitis. After treatment oedema of cervix markedly reduced It is revealed that the chemical constituents of the trial drug is having anti-inflammatory property *(Rai M. Gupta SS- 1966 and pendse VK et. al 1977).*

Epithelial cell and pus cell in vaginal smear has been reduced markedly in case of trial group but a mild change has been observed in placebo group Epithelial cell and pus cell in urine was also somewhat reduced in trial group.

Regarding the degree of pallor as regards to Hb% it is observed that a mild improvement i.e. 24.32% in trial group and 2.83% in placebo group was found. The improvement in pallor in trial group might be due to psychological improvement by the treatment which shown on table no-16. The drug has applied externally and has no direct effect to the haemopoitic system hence increasing in haemoglobin is a co- incidence and may due to improvement in dietary intake in individuals.

After completion of the study the statistical analysis showed that 25% of cases were fully cured, 30% of cases achieved maximum improvement 25 % of cases achieved moderate improvement and 20% of cases achieved mild improvement in trial group. In placebo group no such improvement was observed. Thus the trial drug is having a good efficacy in leucorrhoea due to cervical erosion.

The above study reveals that there was slight improvement in different sign and symptoms like pain, tenderness and itching sensation in placebo group, but there was no such improvement in main symptoms like cervical erosion, oedema and discharge. While in case of trial group there was tremendous improvement in all symptoms. In case of placebo group it was also noticed that there was slight reduction of pus cell and epithelial cell in both vaginal smear and urine. It might be due to maintenance of proper hygiene by regular washing of vagina and cervix with distilled water.

During the treatment by the trial drug (*Guduchi satwa*) there was no any adverse effect noticed.

CONCLUSION

1. It is a condition caused predominantly due to vitiation of *vata* and *kapha* with involvement of *rasa dhatu.*
2. Local application of *Guduchi satwa* on leucorrhoea due to cervical erosion has given an effective result.
3. It has also given satisfactory result in cervical oedema, pain, tenderness and itching sensation.
4. It has no side effect or any on toward effect in the body.
5. *Guduchi satwa* is an easily available and cost effective drug.
6. The procedure of *avachurnana* of *Guduchi satwa* is an easy and can be carried out as an outdoor procedure.

7. *Guduchi satwa* cures the cervical erosion and discharge by its *tikta, kasaya rasa, grahi, krumighna, vedana sthapan, Dahaprasaman* etc. properties. Hence it can be concluded that *Guduchi satwa* can be used in case of leucorrhoea due to cervical erosion confidently. It is further suggested that as the number of patient in the present study is very less it may be further tried with a large scale and requires more exploration by the help of modern scientific parameters.

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