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A CLINICAL STUDY TO EVALUATE THE EFFICACY OF YAVAKSHARA IN GARBHASHAYAGREEVAGATA VRANA W.S.R. TO CERVICAL EROSION

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Abstract

Garbhashaya Greevagata Vrana, which can be correlated to Cervical Erosion, is one among the common conditions seen in Gynaecology OPD. Garbhashaya Greevagata Vrana is caused by vitiation of vata and kaphadosha, it is condition in which squamous epithelium of ectocervix is replaced by columnar epithelium which is continuous with that lining the endocervix. This may present with other symptoms like vaginal discharge, itching, foul smell etc. If it is not treated for long time it may land up in female infertility and in the due course of time the same may lead to cervical carcinoma. In the classics treatment of Vrana with Kshara which has vranashodhana, ropana property is proposed as a local treatment. In the present study Yavakshara has been selected for the same.

Objectives: 1) To evaluate the efficacy of Yavakshara in GarbhashayaGreevagataVrana. 2) To evaluate the incidence of Garbhashaya Greevagata Vrana in general population of Prasooti Tantra Evam Stree Roga Department of SKAMCH & RC, Bangalore.

Materials and Methods: It is a clinical study with pre and post test design which was conducted on 40 patients diagnosed of Garbhashayan Greevagata Vrana (Cervical Erosion) and randomly assigned into two equal groups.

Group A: 20 patients were treated with Sthanikachikitsa where in Yavakshara was applied on Garbhashaya Greevagata Vrana for a period of 5 minutes, after which the Kshara was neutralized with Nimbu Swarasa. This was done once in a day for 10 consecutive days along with Pathyaahara and vihara of Vrana as told in the classics.

Group B: 20 patients were advised to follow Pathya and Apathya for 10 days as advised in the classics.

Follow up was done after 7th day of next menstrual cycle for both the groups.

Results: The comparison between the groups showed statistically significant result in majority of the parameters of assessment criteria. Which means that there was marked difference in between the groups. Group A has showed highly significant results within the group in all the parameters whereas Group B has showed significant result in only one parameters and the other parameter were non significant?

Conclusion: “Application of Yavakshara” has shown successful results in all the cardinal symptoms of Garbhashaya Greevagata Vrana.

Key words: Garbhashaya Greevagata Vrana, Cervical Erosion, Yavakshara.

INTRODUCTION

The woman in her active reproductive phase is an abode of physiological changes due to hormonal variations. But, due to the present day life style where she executes dual responsibilities and is subjected to enormous stress and also due to hormonal fluctuations, the intricate biological balance is disturbed. The peak level of estrogen, which is inevitable for feminine orientation, sometimes leads to certain pathological problems where cervical pathology is one.

Conditions like pregnancy, unopposed estrogen action, therapies involving estrogen, lead to histological changes in cervix. Injuries during parturition, local infections also contribute to the pathology¹ involving destruction of squamous epithelial tissue of cervix and replaced by columnar epithelial tissue resulting in Cervical Erosion². This disease entity is clinically evident by excessive mucoid discharge per vagina³. With reference to the physical signs and symptoms exhibited by this pathological process, it can be very well correlated to the concept of Vrana and this concept of Vrana can be correlated to a primitive cell lesion/pathology. The present disease entity, Vatakaphajavrana is characterized by shweta, pichchilasrava simulates to the specific symptom of white mucoid discharge per vagina in case of Cervical Erosion⁴. This is specifically coined as Garbhashaya Greevagata Vrana.

With existing social taboos, where the women refuse to disclose such ailment and do not resort to proper medical advice, the condition is usually left untreated. Thus when

neglected, the condition leads to manifestations such as Cervical Carcinoma, infertility etc. making her life miserable. So, effective management of such condition is the need of the hour.

Though the conventional treatments like electro cautery, cryosurgery, laser vaporization⁵ are effective but complications like secondary hemorrhage, cervical stenosis⁶ etc. are not denied. Hence an attempt is made to find an effective Ayurvedic remedy devoid of adverse effects and which promotes woman's health. The local vaginal treatments which are more effective and act faster are more preferred due to the ease of use. Ayurveda has a unique approach in treatment of such disease, wherein local treatment of application of Yavaksara is advocated along with proper pathya. This approach is employed in the present study with a view to understand the efficacy of local vaginal treatment modalities in Garbhashaya Greevagata Vrana (Cervical Erosion).

OBJECTIVES

- To evaluate the efficacy of Yavakshara in Garbhashaya Greevagata Vrana.
- To evaluate the incidence of Garbhashaya Greevagata Vrana in general population of Prasooti Tantra Evam Stree Roga Department of SKAMCH & RC, Bangalore.

MATERIALS AND METHODS

This is a controlled clinical study with pre-test & post-test design where in 40 patients diagnosed with Cervical Erosion were selected from OPD and IPD of SKAMCH & RC, Bangalore and randomly divided into two groups.

Diagnostic Criteria:

Patients were diagnosed as per diagnostic criteria of Cervical Erosion which includes:

- Vaginal discharge
- Vaginal itching
- Low back ache
- Lower abdominal pain

- Detection of Erosion by per speculum examination
- Pap smear, confirming histopathological changes of cervix

INCLUSION CRITERIA

- Diagnosed cases of cervical erosion
- Married female patients between the age group of 18 - 45 yrs.

EXCLUSION CRITERIA

- Pregnant women
- Puerperal women
- Patients on OCP and IUCD
- Systemic disorders which interfere with the course of treatment
- Cervical polyp
- Cervical carcinoma

Assessment criteria

Signs and symptoms were assessed using the following parameters:

- Vaginal discharge
- Odour of discharge
- Vaginal itching
- Low back ache
- Lower abdominal pain
- Erosion – Extent (Assessment according to % of tissue involved)
 - Appearance
- Bleed on touch

INTERVENTION

40 patients diagnosed as GarbhashayagreevagataVrana (Cervical Erosion) were selected randomly and assigned into two equal groups.

Group A:

20 patients were treated with Sthanikachikitsa where in Yavakshara was applied on Garbhashayagreevgatavrana for a period of 5 minutes, after which the kshara was neutralized with Nimbu Swarasa. This was done once in a day for 10 consecutive days along with Pathyaahara and vihara of Vrana as told in the classics

Pathyaand Apathya

	PATHYA	APATHYA
Fruits	Apricot, berry, cherry, coconut, date, fig, apple, banana, grape, papaya, pear, prune, raisins, pomegranate	Dry fruit, Sour/ sweet fruits in excess
Vegetables	Lotus root, cooked onion, radish, asparagus, green beans, broccoli, cabbage, carrot, cauliflower, cucumber, brinjal, ladies finger, bitter guard, papaya, pepper, spinach	Mushroom, raw onion, tomato, raw vegetables,
Spice	Anise, basil, black cumin, black pepper, caraway, cardamom, cloves, coriander, cumin, fennel, cocked garlic, mustard, nutmeg, parsley, saffron, tamarind, turmeric, vanilla	Raw garlic
Nuts/ seeds	Coconut, poppy seeds, sesame, pumpkin seeds	Sunflower seeds
Diary	Cottage cheese, butter unsalted, ghee, cow's milk, goat's milk, yogurt	Butter milk, butter salted, cheese, ice cream
Oils	Almond, coconut, mustard, olive, sesame,	Animal fat, mixed vegetable fat
Grains	Barley, millet, wheat	Oats
Beverage	Carrot juice, grape juice, mango juice, apple juice, coffee	Alcohol, carbonated drinks, cold drinks, tomato juice

Group B:

20 patients were advised to follow Pathya and Apathya for 10 days as advised in the classics, which are mentioned above.

Duration of the study:Pre Test - 1st day (after 7th day of menstrual cycle)

Post Test - 10th day (10 days after treatment)

Follow up - After 7th day of next menstrual cycle**ASSESSMENT CRITERIA:****Subjective Criteria:****1. Vaginal Discharge (Yoni srava)**

No Abnormal Discharge	0
Mild discharge (Vaginal moistness)	1
Moderate discharge (Slight staining of under garments)	2
Severe discharge (Needs pad)	3

2. Odour of Discharge (Gandha of Srava)

No offensive odour	0
Mild (Foul smell of discharge observed during micturation)	1
Moderate (Foul smell smelt whole day by the patient)	2
Severe (Foul smell smelt by others)	3

3. Vaginal Itching (Yoni Kandu)

No itching	0
Mild (Feeling of irritability)	1
Moderate (Disturbs daily routine activity, increases after specific time during micturition)	2
Severe (Affects routine activity)	3

4. Low back ache (Kati shula)

No Pain	0
Mild (Discomfort after work ,Relieves with rest)	1
Moderate (pain continuous in nature disturbs routine work, relieves with rest)	2
Severe (pain continuous , disturbs routine work and sleep, doesn't relieves with rest)	3

5. Lower abdominal pain (Udarashula)

No pain	0
Mild Pain (Does not disturb routine activities , relieves with rest)	1
Moderate Pain (Disturbs routine activities, does not relieve with rest, but relieves with medication)	2
Sever Pain (Relieved neither by rest and nor with medication)	3

Objective Criteria:-**1. Amount of Discharge**

Absent	0
Scanty (Vulval Moistness)	1
Moderate discharge (hair get matted / Discharge on Vulva)	2
Severe, (Discharge Coming From Introitus)	3

2. Extent of Erosion (% Scale system)

0 – 25 %	0
26 – 50 %	1
51 – 75%	2
76 – 100%	3

3. Appearance of Erosion

Pink colour / Normal tissue / No discharge at cervix	0
Pinkish red/ granulation tissue complete/ Slight discharge	1
Red / No granulation tissue/ Moderate discharge	2
Deep red / No granulation/ Cervix embedded in discharge	3

4. Bleeds on touch

No Bleeding spots	0
Slight Bleeding (Controlled by compression)	1
Moderate Bleeding (Controlled by compression)	2
Severe bleeding (Not controlled by compression)	3

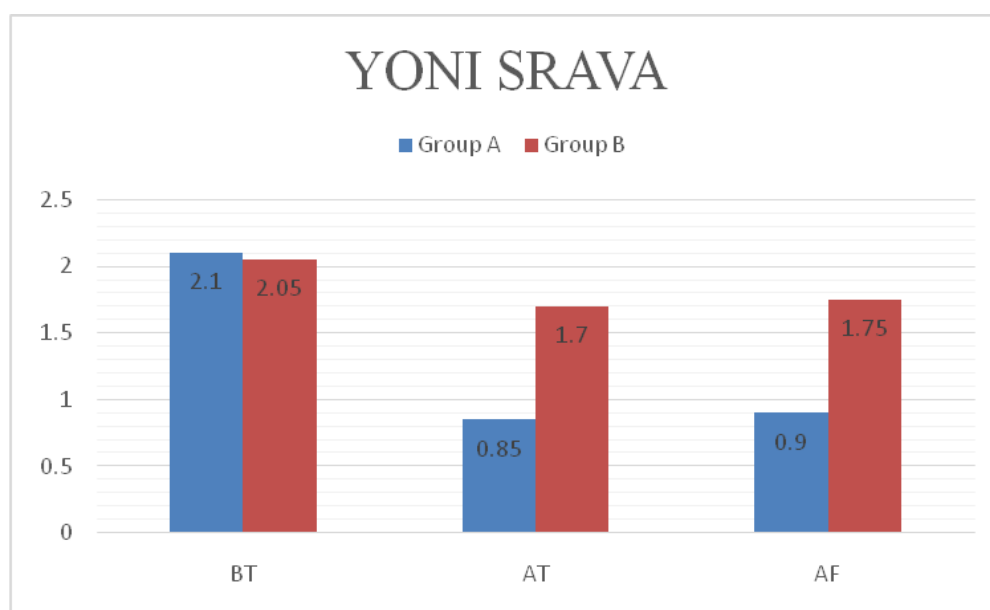
RESULTS

Efficacy of YavaKsharaon GarbhashayaGreevagatavrana

SUBJECTIVE PARAMETERS

YONI SRAVA

The effect of treatment on patients in Group A is statistically highly significant with p-value <0.001 after treatment as well as at follow up.

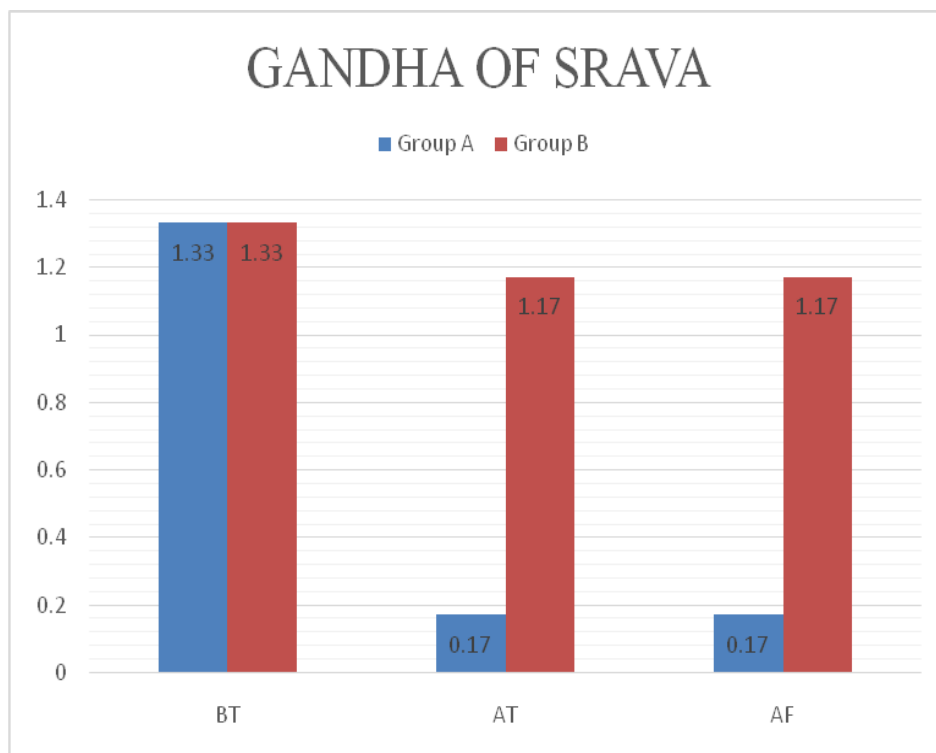


The effect of treatment on patients in Group B is statistically highly significant with a p-value <0.01 after treatment, and significant with p-value <0.05 at follow up.

On comparing the efficacy of treatment in between the two groups, the t- values are 4.32 and 3.95 and its corresponding p-values are <0.001 after treatment and at follow up respectively which shows highly significant result.

GANDHA OF SRAVA

The efficacy of treatment on patients in group A on Gandha of srava is statistically highly significant with p-value <0.001 after treatment as well as at follow up.



The efficacy of treatment on patients in group B on Gandha of srava is statistically non significant with p-value >0.05 after treatment as well as at follow up.

The efficacy of treatment on patients in group B on Gandha of srava is statistically non significant with p-value >0.05 after treatment as well as at follow up.

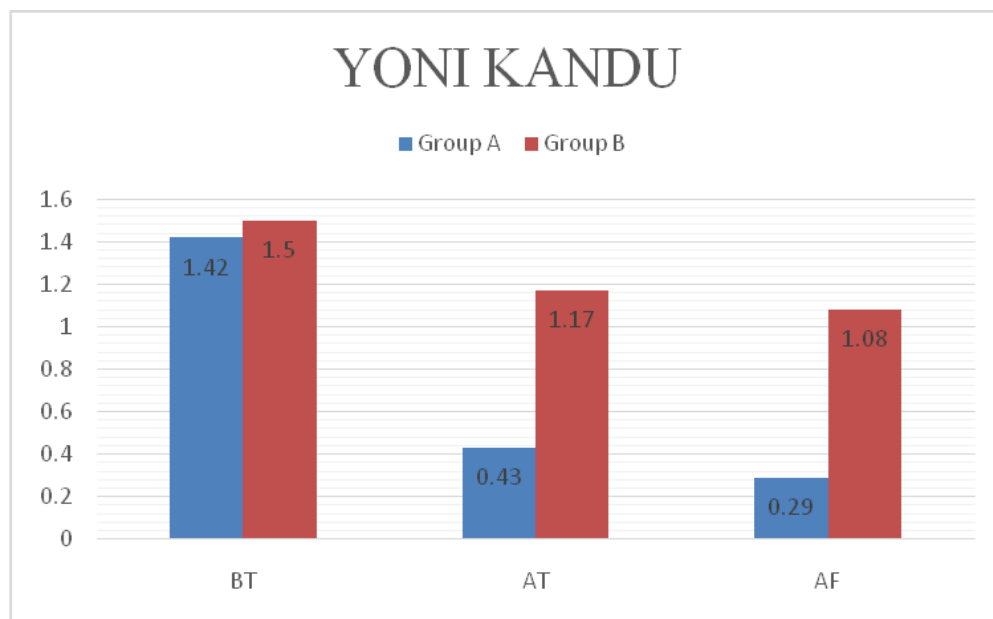
On comparing the efficacy of treatment between the two groups, the t-values are 2.87 after treatment and at follow up with their corresponding p-value < 0.05 after treatment and at follow up respectively which shows significant result.

YONI KANDU

The efficacy of treatment on patients in group A on yoni Kandu is statistically highly significant with p-value <0.001 after treatment as well as at follow up.

The efficacy of treatment on patients in group B on yoni Kandu is statistically significant with p-value <0.05 after treatment as well as at follow up.

On comparing the efficacy of treatment between the two groups, the t-values are 2.73 and 3.4 with its corresponding p-value <0.05 showing significant result after treatment and p-value <0.01 which shows highly significant result at follow up.

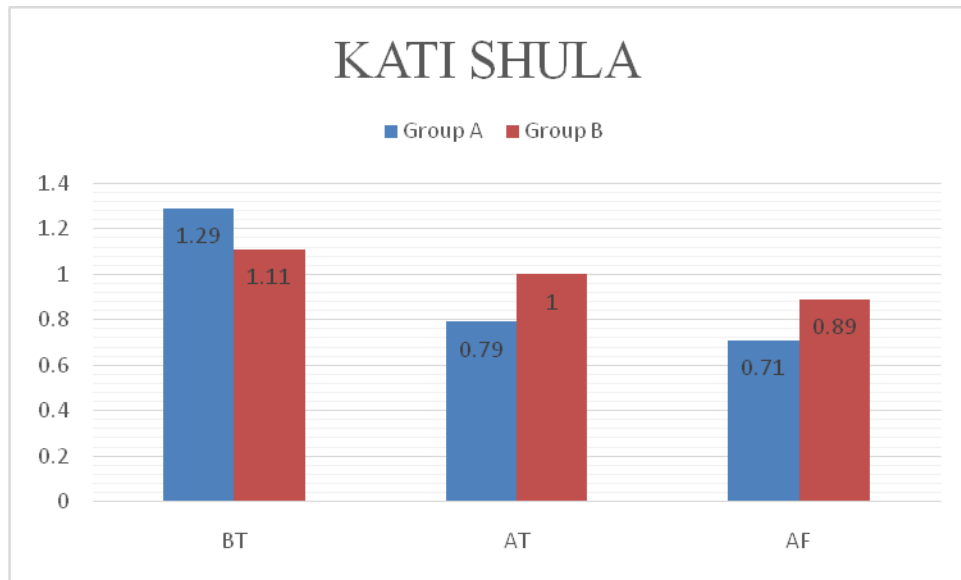


KATI SHULA

The efficacy of treatment on patients in group A on Kati shula is statistically highly significant with p-value <0.01 after treatment and at follow up.

The efficacy of treatment on patients in groups B on Kati shoola is statistically non significant with p-value >0.05 after treatment and at follow up.

On comparing the efficacy of treatment between the two groups, the t-values are 0.92 and 0.7 with its corresponding p-values >0.05 showing non significant result after the treatment and at follow up.

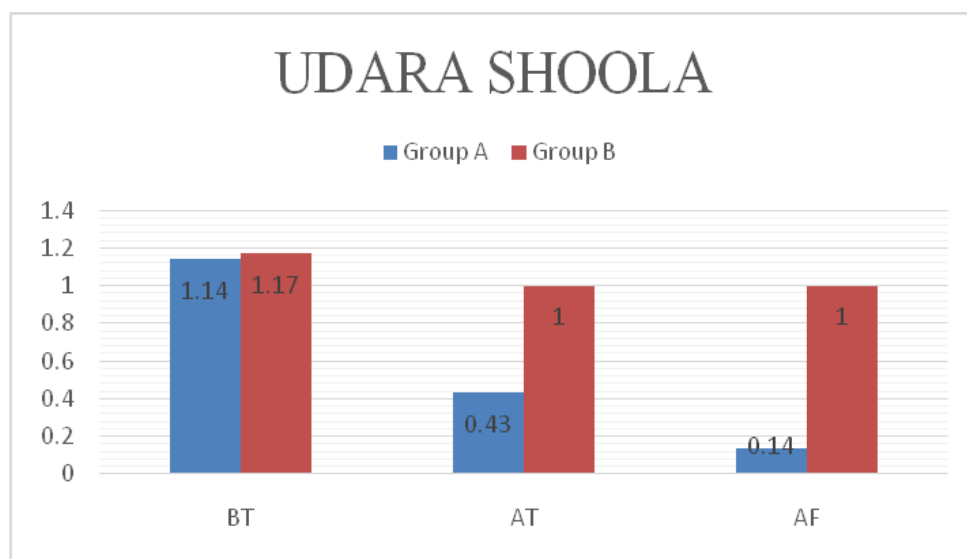


UDARA SHULA

The efficacy of treatment on patients in group A on Udarashula is statistically significant with p-value <0.05 after treatment and highly significant with p-value <0.01 at follow up.

The efficacy of treatment on patients in groups B on Udarashula is statistically non significant with p-values >0.05 after treatment and at follow up.

On comparing the efficacy of treatment in between the two groups, the t-values are 1.53 and 2.48 with its corresponding p-values >0.05 and <0.05 showing non significant result after treatment and significant result at follow up.

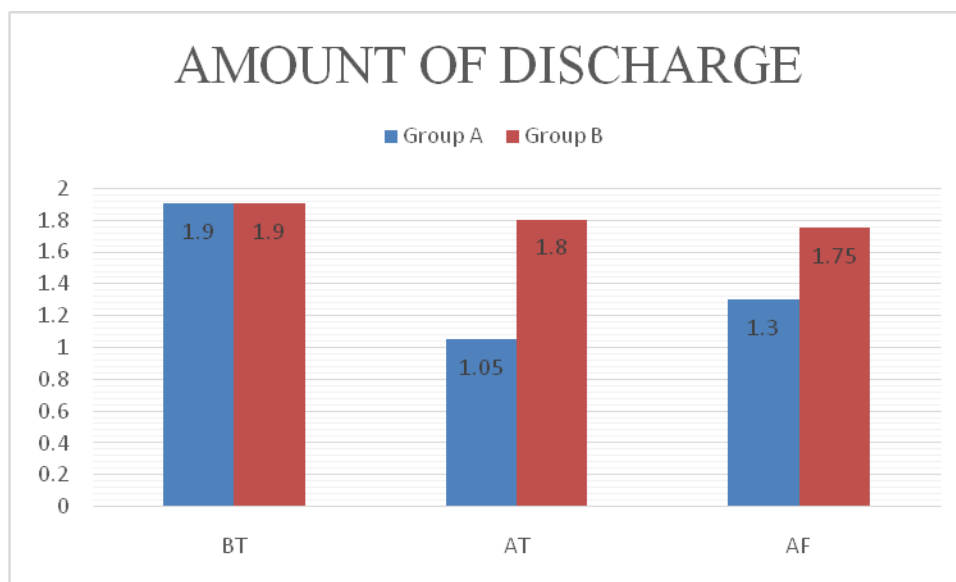


OBJECTIVE PARAMETERS

1. AMOUNT OF DISCHARGE

The efficacy of treatment on patients in group A on Amount of Discharge is statistically highly significant with p-value <0.001 after treatment as well as at follow up.

The efficacy of treatment on patients in groups B on Amount of Discharge is statistically non significant with p-value >0.05 after treatment and at follow up.



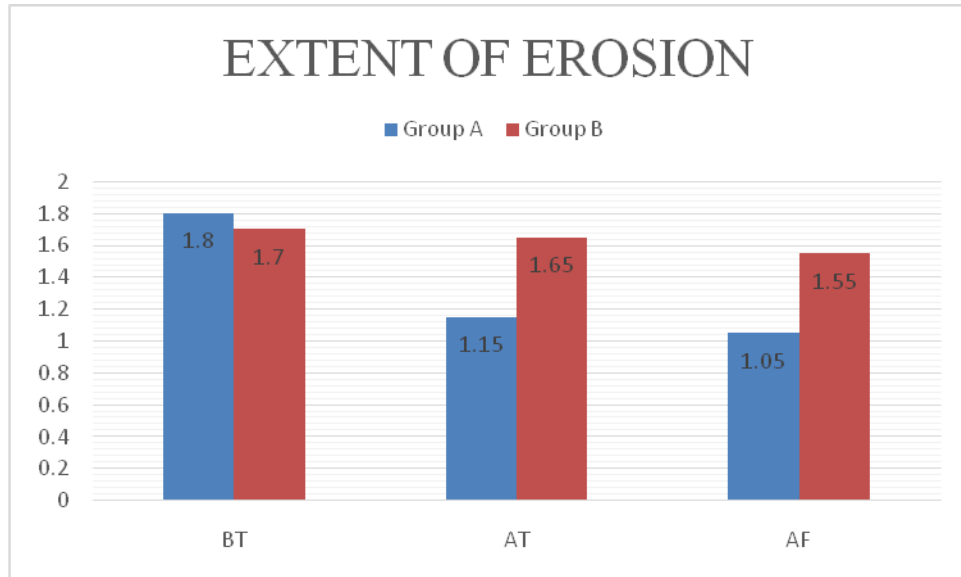
On comparing the efficacy of treatment in between the two groups, the t-values are 3.09, and 1.66 with its corresponding p-value <0.01 showing highly significant result after treatment and p-value >0.05 showing non significant result at follow up.

EXTENT OF EROSION

The efficacy of treatment on patients in group A on Extent of Erosion is statistically highly significant with p-value <0.001 after treatment as well as at follow up.

The efficacy of treatment on patients in groups B on Extent of Erosion is statistically non significant with p-value >0.05 after treatment and at follow up.

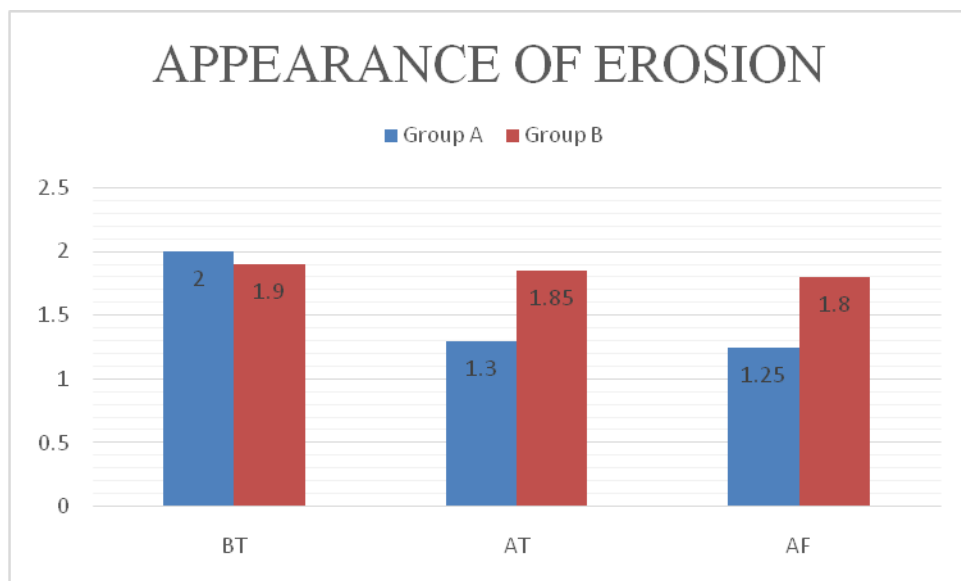
On comparing the efficacy of treatment in between the two groups, the t-values are 1.48 and 1.4 with its corresponding p-values >0.05 showing non significant result after treatment and at follow up.



APPEARANCE OF EROSION

The efficacy of treatment on patients in group A on Appearance of Erosion is statistically highly significant with p-value <0.001 after the treatment as well as at follow up.

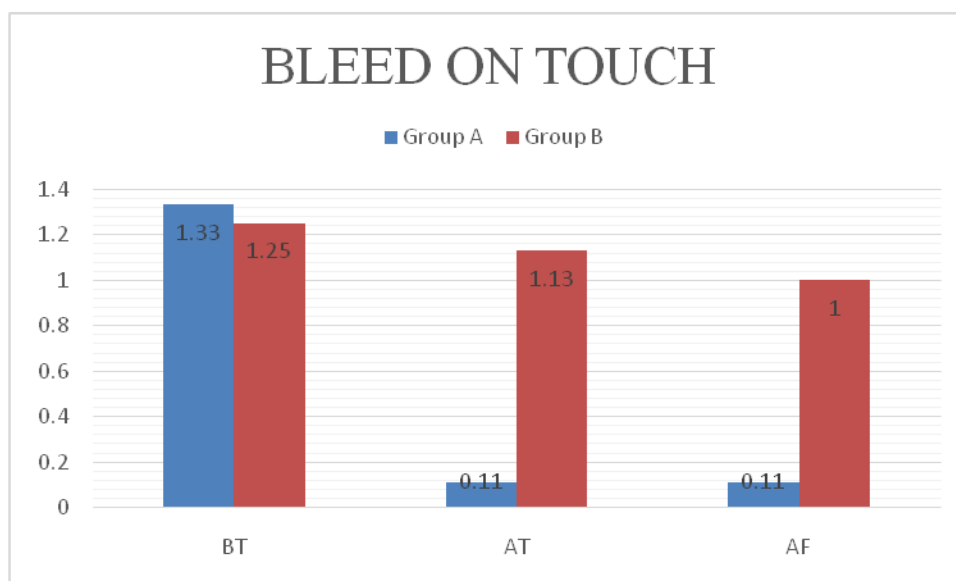
The efficacy of treatment on patients in groups B on Appearance of Erosion is statistically non significant with p-value >0.05 after the treatment and at follow up.



On comparing the efficacy of treatment in between the two groups, the t-values are 2.26 and 2.14 with its corresponding p-value <0.05 showing highly significant result after the treatment and at follow up.

BLEED ON TOUCH

The efficacy of treatment on patients in group A on Bleed on Touch is statistically highly significant with p-value <0.001 after treatment as well as at follow up.



The efficacy of treatment on patients in groups B on Bleed on Touch is statistically non significant with p-value >0.05 after treatment and at follow up

On comparing the efficacy of treatment in between the two groups, the t-values are 4.05 and 4.1 with its corresponding p-value <0.01 showing highly significant result after treatment and p-value <0.001 showing highly significant resultant follow up.

DISCUSSION

Though the results in both the groups proved to be good regarding srava, Group A showed better results. This could be attributed to the shoshana and stambhana properties of Kshara which contributes in relieving the symptom.

Kshara is prepared from agneyabhuyistadravya so it is having katu rasa and katu vipaka, ushnaveerya and teekshnaguna. Because of its snigdha and sukshmaguna it is vatashamaka, because of its teekshnaguna it is shleshmahara.

The shoshana and stambhanaproperties of Kshara helps in relieving the srava from vrana. When the srava is reduced, the persistent irritation to the cervix also resolves, further resolving katishula and udarashula as these are referred pain from cervical area or due to cervical irritation. Further the vata kapha hara action of yava - ingredients of the Yavakshara and Yavakshara itself, helps in bringing about the regulation and normalization of the ApanaVata functions and there by helps in relieving the Kati Shula.

Shodhana and lekhanaguna of kshara helps in removing the cell debris inturn it prevents the possibility of thriving of microorganisms and thus helps in reducing the offensive odour in the vaginal environment.

The Katu Rasa and vipaka of Yavakshara enhances the shoshanaguna of ksahra, by which kledata will be reduced. This ultimately helps in bringing about relief from Kandu.

Kshara is vranashodhaka and vranaropaka. These qualities of kshara helps in healing of the Cervical Erosion. Once healing of the Cervical pathology takes place the capillary fragility reduces and tissues becomes healthy after the healing of erosion, thereby causing relief from bleed on touch.

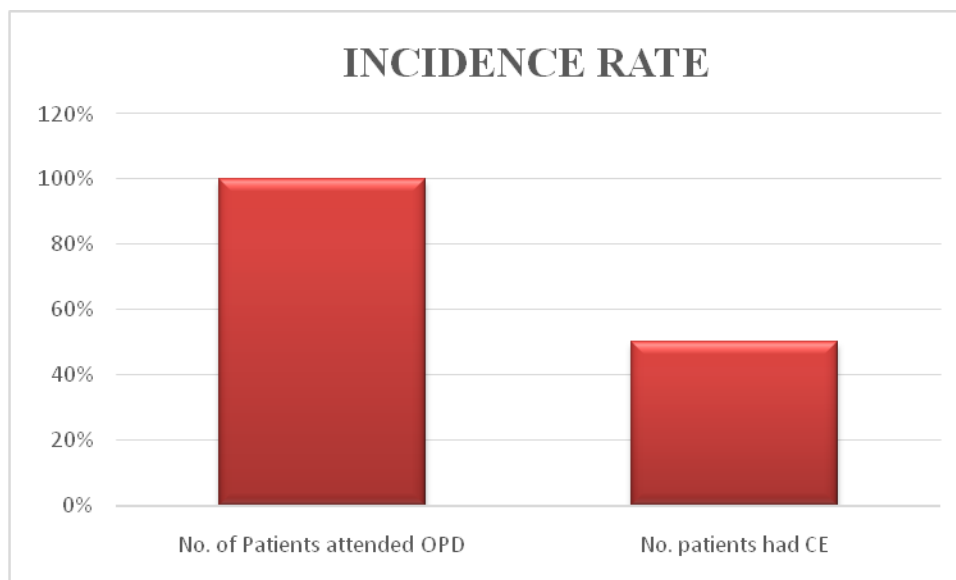
INCIDENCE RATE

To fulfil the 2nd objective of the study,

The observation of incidence of Garbhashaya Greevagata Vranain general population of Prasooti Tantra and Stree Roga Department of SKAMCH & RC, Bangalore during the study period- from March 2015 to December 2015

INCIDENCE RATE OF CERVICAL EROSION

No. Of Patients attended OPD	Percentage	No. of Patients who had Cervical Erosion	Percentage
4983	100%	2492	50.01%



DISCUSSION

VatakaphajaVrana which probably can be co- related to Cervical Erosion, needs ushna-teekshna and agneyagunadravya to combat its doshas. Thus, kshara which is having ushna and teekshnaguna, mentioned for treatment of vrana is considered for the study. These qualities being exactly contradictory to gunas of vata and kapha causesvatakaphashamana by the basic principle of ‘samanya – visheshasiddhanta’. With these interpretations yavakshara is taken for the study.

Cure of disease takes place due to SampraptiVighatana. This can be explained by the action of Rasa, Guna, Virya, Vipaka and Prabhava of drugs in the various Srotasas, Doshas and Dushyas.

Kshara is prepared from agneyabhuyistadravya so it is having katu rasa and katu vipaka^{7,8}, ushnaveerya and teekshna guna⁹. Because of its snigdha and sukshma guna¹⁰ it is vatashamaka, because of its teekshnaguna it is shleshmahara.

The shoshana and stambhana¹¹ properties of Kshara help in relieving the srava from vrana. When the srava is reduced, the persistent irritation to the cervix also resolves, further resolving katishula and udarashula as these are referred pain from cervical area or due to cervical irritation. Further the vatakapha hara action of yava - ingredients of the Yavakshara and Yavakshara¹² itself, helps in bringing about the regulation and

normalization of the ApanaVata functions and there by helps in relieving the Kati Shula.

Shodhana and lekha¹³guna of kshara helps in removing the cell debris inturn it prevents the possibility of thriving of microorganisms and thus helps in reducing the offensive odour in the vaginal environment.

The Katu Rasa and vipaka of Yavakshara enhances the shoshanaguna of ksahra, by which kledata will be reduced. This ultimately helps in bringing about relief from Kandu.

Kshara is vranashodhaka and vrana ropaka¹⁴. This quality of kshara helps in healing of the Cervical Erosion. Once healing of the cervical pathology takes place the capillary fragility reduces and tissues becomes healthy.

CONCLUSION

- Cervical Erosion is a common disease affecting 50.01% of the female population.
- Improper hygiene, food habits, stress, chronic long standing complaint of white discharge per vagina neglected by patients are major cause for Cervical Erosion.
- Application of Yavakshara emerged better in terms of treating the signs and symptoms such as Yonisrava, Yonikandu, Katishoola and Udarashoola. Further it also proved effective in the healing of Cervical Erosion (both in terms of appearance as well as Extent of Erosion). with reference to Appearance in comparision to the Extent of Erosion
- No Adverse drug reaction and side effects were observed in the present study.
- The overall effect of the therapy is shodhana, ropana, lekha, sthambhana, shoshana, dahana and krimighna.
- Slight re-occurrence of the symptoms was reported in the study after follow up which implies there is a need for a repeated intervention.

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