

## Effect of oral administration of Rasnaadi Ksheera and Tila taila pichu in Udavartini Yonivyapat w.s.r. To Dysmenorrhoea

### Research article

**Bhaskaruni Subbalakshmi<sup>1\*</sup>**

1. Professor, Department of Prasuti and Stree roga,  
DR. B.R.K.R. Govt. Ayurvedic College, Hyderabad (Andhra Pradesh)

### Abstract

Pain during menstruation incapacitates the female person to attend her routine work and social movements. In Ayurveda, this menstrual pain said to be *Udavartini yonivyapat* which is one among 20 *yonivyapats* experienced by woman during menstruation can be correlated to dysmenorrhoea and can also results *vandhyatwa* (female infertility). The effect of *Rasnadiksheera* oral and *tilatail pichu* local in *Udavartini yonivyapat* with reference to dysmenorrhoea taken up for clinical study. 60 married patients between the age of 18 to 42 years are of *Udavartini yonivyapat* are subjected. 30 married patients are selected in group A and given only *Rasnadiksheera* oral. 30 married patients are selected in group B and subjected to both oral *Rasnadiksheera* and *Tilatail pichu* (medicated tampon at vaginal cervix) local. *Rasnadiyoga* powder 5gm. in 100 ml. cow milk was boiled and added sugar 5 gm. Patients were advised to take oral 3 hours before food, twice daily i.e. morning and evening for 3 consecutive months, except in menstruation. *Tilataila pichu* applied for married woman immediate after cessation of menstrual bleeding for five days for three cycles. Shali, nivata Sevanam etc., advised. Day Sleep, night awaking, vegavarodham etc., were restricted. Menstrual cycle, menstrual flow, pain abdomen, intensity of pain, vomiting, backache, head ache, underlying cause like PID, Endometriosis, any inflammatory condition etc. taken as parameters. Relief of the same considered as assessment criteria. Results were subjected to statistical value. *Rasnadiksheera* oral was highly effective by relieving the pain during menstruation and *tilatail pichu* was enhancing more by relieving the vitiated *vata* symptoms.

**Keywords:** *Rasnadi Ksheera, Tilataila pichu, artava dosha, Painful menstruation, Udavartini yonivyapat, Dysmenorrhoea.*

### Introduction

*Udavartini* is one among 20 *yonivyapats*. *Mityaharaviharam, Pradushtartava, Beejadosha, Daivam* (Idiopathic factors) are the general causes (1). Painful menstrual cycle with difficult

discharge contains froth accompanying all *vatapedana* along with *yoni peedana* resulted by upwards or reverse direction of aggravated *vaata* experienced at the time of *rutukala* (menstruation) ; Patients get comfort with the discharge of menstrual bleeding - as defined by the *Bruhatrayi* (2) & (3) . Entire reproductive system or part of it can be considered as *yoni*. Negligence may lead to the Complications like infertility, *gulma, arshas, pradara, vatarogas* etc. (4) & (5). The condition *udavarthaini* resembles the description of almost all types of dysmenorrhoea. The

\*Corresponding Author:

**Bhaskaruni Subbalakshmi**

Flat No 308, Akruthi Annex Apartments,

Lane 4 Czech colony,

Sanathnagar, Hyderabad -18.

Mail: [subbalakshmi.bhaskaruni@gmail.com](mailto:subbalakshmi.bhaskaruni@gmail.com)

Ph.No: +91-9440240149

symptom of immediate relief of pain following discharge of menstrual blood is nearer to primary or true or spasmodic dysmenorrhoea. Discharge of clotted blood can be compared to special form of spasmodic dysmenorrhoea characterized with expulsion of big clots of blood. The association of *kapha* can be compared to the association of mucous membrane or endometrium. The same can be correlated to another form of spasmodic dysmenorrhoea, i.e membranous dysmenorrhoea.

*Rasnadiksheera* is indicated as *yonishoolahara* (painkiller) in (6) & (7). *Vasa* (*Adha todha vasika nees. - Raktapittahara sreshta dravyam*) is one among three ingredients of it. A question arises to know the action of drug being *raktapittahara* drug how the *vasa* give relief in *udavartini* where the discharge of menstrual flow give relief to the patient and it is enthusiastic to know the possibility.

### Aims & Objectives

To know the prevalence of disease; To study pathogenesis of disease; To study and assess the efficacy of oral *Rasnadiksheera* along with & without *Tilatail pichu* local; To observe well being of general health.

### Materials & Methods

#### Selection of Patients

60 married patients of *Udavartini yonivyapat* were identified by symptoms like - scanty menstruation, irregular cycles and painful cycles etc., age group and by the investigations like Ultra Sonography as per need. 30 married patients were selected in group A. 30 married patients were selected in group B.

**Investigations** - Complete Blood Picture (CBP), Erythrocyte sedimentation rate (ESR), Complete Urine Examination (CUE), Fasting blood Sugar (FBS), Post Lunch Blood Sugar (PLBS), VDRL, USG as per need.

**Inclusive criteria** – Patients suffering with painful menstruation in between the age of 18 to 42 years are included.

**Exclusive criteria** – Patients suffering with systemic disorders, benign and malignant growths etc. were excluded.

**Work place** – DR. B. R. K. R. Govt. Ayurvedic College & Hospital – Hyderabad, Andhra Pradesh.

### Clinical Plan

Factors of *Udavartini yonivyapat* were confirmed by counseling, check up and investigations. In 60 married patients of *Udavartini yonivyapat* – 30 married patients were subjected to oral *Rasnadi ksheera* only. 30 married patients were subjected to oral *Rasnadi ksheera* and *Tilataila pichu*.

### ORAL Drug

Preparation:– equal parts of *Rasna*, *Gokshura*, and *Vasa* were taken in a powder form mixed well and kept ready for trial. Administration:– 5gm of *Rasnadiyoga* powder was added to 100ml of cow milk and boiled till it reduced to half. Then 5gm of sugar was added to it. It was given orally 3 hours before food twice daily i.e. morning and evening for 3 months except in menstruation for both groups.

### PICHU

From sixth day or after complete cessation of menstrual bleeding procedure was taken up. "Murchita tila tailam" (8) was used for this procedure. Triphala (*Embllica offiainalis*, *Terminalia Chebula* Ritz. And *Terminalia Belerica* Roxb.), *musta* (*Cyprus rotundus* linn.), *rajani* (*curcuma longa* Linn.), *hribera*, *lodhra* (*Symplocus racemosa* Roxb.), *kethaki pushpa* (*Pandanus Tectorious* Solandex), *vataankur* (*Ficus Bengalensis* linn.) and *dalchani* (*Cinnamomum Zilanicm* Blume.) – all (9) taken in equal parts; made in coarse powder. One liter *tila tailam* (*gingelly oil*), ¼ th part prepared course

powder and 4 liters water together boiled till the absorption of water & used for Pichu. *Tila taila pichu* (10) applied once in a day at forenoon for five days for three cycles. After passing the urine, in lithotomy position, cotton tampon was soaked in *tila taila* and inserted in vagina near vaginalcervix with all antiseptic precautions. Time of the tampon in vagina is 'Aamutravat' (till urinary urge) or 'Muhurta kalam' or minimum one hour. Patient was instructed to take out the tampon while passing the urine.

**Patya (congenial)** – *saali, yava, mamsarasa* (meat soup), *chatusneham (tila taila, ghruta* (cow ghee), *vasa, majja*) - for oral in diet, *nivatha sevanam* (not to expose to more airtation) etc were advised. Breathing exercises; weight reduction measures like walking, deiting, etc. and meditation for mental stability are suggested as per need.

**Apathya (non congenial)** – day sleep, night awakening, controlling the urinary urge, etc. and *katu tikta* (bitter) *kashaya sevana* etc were restricted.

**Treatment duration** – 3 months

**Follow up period** –

Follow up was done for 1 year for observation and necessary investigation.

**Observations** -The patients were asked to review every month and enquiry was made about relief from pain. Patients are subjected to USG before and after the treatment to know the relief for underlying cause if any.

**Parameters** – Subjective- irregular menstrual cycle, irregular menstrual flow, pain abdomen, intensity of pain, vomiting, backache, head ache, underlying cause like PID, endometriosis, any inflammatory condition etc. taken as parameters.

Objective – USG

## Results

Assessment was done basing on relief from subjective and objective parameters.

## Assessment Criteria

Results were assessed on normal menstrual flow, regular menstrual cycle, relief from pain abdomen, intensity of pain, its duration and other features like vomiting, back ache, etc. Intensity of pain and its relief with interference of daily activities and need of analgesics for relief were taken as mild, moderate and severe. Complete relief (75 to 100% relief), partial relief (25 to 75% relief) and no relief (0 to 25% relief) of features were taken into assessment criteria.

1. Objective – i) scanty menstruation (Bleeding less than three days and less than two pads per a day) Normal – 3 to 5 days, 2 to 3 pads per a day.

ii) heavy bleeding with clots - more than 5 days and more than 3 pads per a day. Normal – 3 to 5 days, 2 to 3 pads per a day.

iii) delayed menstrual cycles ( more than 30 days) . Iv) early menstrual cycles (less than 25 days) Normal - 25 – 30 days. v) relief from pain abdomen

- intensity of pain, its duration and associated features. (Intensity of pain and its relief with interference of daily activities and need of analgesics for relief were taken as mild, moderate and severe) .

vi) vomitings ; vii) back ache ; viii) head ache.

2. Subjective – Ultrasonography for underlying cause.

## Gradation of Results

Therapeutic response was given gradation after treatment in 60 patients. Normal menstrual flow, regular menstrual cycles, relief from objective signs like pain, vomiting, back pain etc. and subjective signs for underlying cause together taken up as complete relief. Relief from some of above said symptoms are taken up as partial relief.

**Statistical analysis** - Statistical analysis was carried out using P – value through Chi – square test to assess the Statistical significance.

**Table 1: Distribution of patients as per age –**

Age group	18-22	23-27	28-32	33-37	38-42	Total
Group – A	6	8	6	5	5	30
Group – B	8	5	7	6	4	30

**Table 2: Distribution of patients as per socio-economic status –**

Socio economic status	Upper mid class	Ordinary middle class	Lower middle class	Total
Number of patients	15	19	26	60

**Table 3: Distribution of patients as per working /housewife**

Occupation	Housewife	Students	Sedentary work	Physical work	Total
Number of patients	20	15	15	10	60

**Table 4: Distribution of patients as per parity –**

Parity	Group – A			Group – B		
	BT	AT	Relief	BT	AT	Relief
Nulliparous	16	4	12	17	3	14
Parous	14	3	11	13	3	10
Total	30	6	24	30	6	24

**Table - 5: Distribution of patients as per the menstrual cycle**

Menstrual cycle	Group-A				Group-B			
	B.T.	A.T.	Remission (%)	Chi-square (p < 0.05)	B.T.	A.T.	Remission (%)	Chi-square (p < 0.05)
Early	8	2	6 (75.0)	6.67 (Sig.)	10	2	8 (80.0)	10.21 (Sig.)
Delayed	15	5	10 (66.7)	12.15 (Sig.)	15	4	11 (73.3)	14.35 (Sig.)
Regular	7	7	-	-	5	5	-	-
Total	30	-	-	-	30	-	-	-

**Table 6: Distribution of patients as per the menstrual flow**

Menstrual flow	Group-A				Group-B			
	B.T.	A.T.	Remission (%)	Chi-square (p < 0.05)	B.T.	A.T.	Remission (%)	Chi-square (p < 0.05)
Scanty	16	5	11 (68.7)	13.85	14	3	11 (78.6)	14.97

				(Sig.)				(Sig.)
Heavy	12	4	8 (66.7)	9.19 (Sig.)	12	2	10 (83.3)	13.89 (Sig.)
Normal	2	2	-	-	4	4	-	-
Total	30	-	-	-	30	-	-	-

**Table 7: Distribution of patients as per symptoms**

Menstrual cycle	Group-A				Group-B			
	B.T.	A.T.	Remission (%)	Chi-square (p < 0.05)	B.T.	A.T.	Remission (%)	Chi-square (p < 0.05)
Backache	12	2	10 (83.3)	13.89 (Sig.)	15	3	12 (80.0)	16.81 (Sig.)
Vomiting	10	2	8 (80.0)	10.21 (Sig.)	6	1	5 (83.3)	5.49 (Sig.)
Headache	8	3	5 (62.5)	4.65 (Sig.)	9	2	7 (77.8)	8.42 (Sig.)
Total	30	-	-	-	30	-	-	-

**Table 8: Distribution of patients as per underlying cause by USG**

USG findings	Group-A				Group-B			
	B.T.	A.T.	Remission (%)	Chi-square (p < 0.05)	B.T.	A.T.	Remission (%)	Chi-square (p < 0.05)
PID	6	4	2 (33.3)	0.6 (NS)	5	1	4 (80.0)	3.75 (NS)
Endometriosis	5	4	1 (20.0)	0.0 (NS)	6	2	4 (66.7)	3.38 (NS)
Inflammatory condition	15	4	11 (73.3)	14.35 (Sig.)	16	3	13 (81.3)	18.66 (Sig.)
Normal	4	4	-	-	3	3	-	-
Total	30	-	-	-	30	-	-	-

**Table 9: Distribution of table showing grading of pain**

Pain	Grade	Score	Number of patients
No pain	Nil	0	-
Menstruation painful but daily activities are not affected	Mild	1	15
Daily activities are affected but Analgesics are not	Moderate	2	25

required			
Daily activities are affected. Usage of analgesics is compulsory	Severe	3	20

**Table 10: Distribution of patients as per pain & relief**

Menstrual cycle	Group-A				Group-B			
	B.T.	A.T.	Remission (%)	Chi-square (p < 0.05)	B.T.	A.T.	Remission (%)	Chi-square (p < 0.05)
Mild	8	2	6 (75.0)	6.67 (Sig.)	9	2	7 (77.8)	8.42 (Sig.)
Moderate	10	3	7 (70.0)	7.91 (Sig.)	9	3	6 (66.7)	6.25 (Sig.)
Severe	12	3	9 (75.0)	11.38 (Sig.)	12	2	10 (83.3)	13.89 (Sig.)
Total	30	-	-	-	30	-	-	-

**Table 11: Distribution of patients as per therapeutic response**

Response	Group-A		Group-B	
	No. of cases	%	No. of cases	%
Complete relief	12	40.0	16	53.3
Partial relief	6	20.0	8	26.7
No relief	12	40.0	6	20.0
Total	30	100.0	30	100.0

**Discussion-**

A study of factors of manifestation of pain during menstruation is as follows - (a) Psychosomatic factors, (b) Abnormal anatomical and functional factors (like inappropriate law of polarity, uterine hypoplasia (which leads to inadequate expulsion force), imbalance in the autonomic nervous control (over activity of sympathetic leads to hypertonicity of circular fibers of isthmus and internal os & re generation of adrenergic neurons), (c) increased vasopressin release during menstruation (leads to increased prostaglandin synthesis and also myometrial activity, which leads to uterine hyper activity and dysrhythmic contraction

results ischemia and hypoxia in turn results PAIN), (d) increased vasoconstrictors (Endothelins and leukotrienes which stimulate the myometrial contractions) cause ischemia. (e) defficiency of Triptic ferment (secretion of endometrium) (leads to membranous dysmenorrhoea) .

A view about duration and sight of pain is as follows;- In Spasmodic dysmenorrhoea cramps are present, on 1<sup>st</sup> and 2<sup>nd</sup> day of menses. In membranous dysmenorrhoea bleeding shed as casts and uterine cramps occurs like primary dysmenorrhoea. In “secondary / congestive” dysmenorrhoea, patient feels pain in pelvic pathology. The pain may be

related to increasing tension in the pelvic tissues due to premenstrual pelvic congestion or increased vascularity in the pelvic organs. The pain is dull, situated in the back & in front without radiation. It usually appears 3- 5 days prior to the period & relieves with the start of vaginal bleeding. There are symptoms of associated pelvic pathology. In “ovarian” dysmenorrhoea pain appears 2 to 3 days before menstruation. In “right ovarian vein syndrome” – during premenstrual period due to pelvic congestion or increased blood flow there may be marked engorgement in the vein leads to pressure on ureter causes stasis results infection in turn pyelonephritis results **PAIN**. “Mittelschmerz syndrome / ovular” pain appears at hypogastrum or at one iliac fossa. In the “pelvic congestion syndrome” vague disorders present along with back ache, pelvic pain, dyspareunia, sometimes menorrhagia or epimenorrhoea with a feel of bulky or boggy (11). Usage of diuretics in second half of the cycle in Premenstrual syndrome is in clinical practice to reduce fluid retention. Conventional therapy of dysmenorhea is symptomatic. General use of hormones in management may cause illness like fluid retention Carcinoma, damage of liver, wt gain, skin pigmentation alteration of clotting management. GnRH analogous result the amenorrhea and suppress the ovarian cycle. Physiological upset, stress caused by suppression of natural urges etc., which are the *midhyahaara vihaara* (irregular diet and behaviour habits) may influence pituitary via hypothalamus. Imbalance of hypothalamo pituitary ovarian axis causes *kshaya* (less) or *vridhhi* (more). Menstrual cycle includes both ovarian cycle and endometrium cycle. “Gati” (movement) is *prakruta vata* property (12). *Soola* (pain) is property of vitiated *vata*. *Srotoavrodha* (obstruction of channels), *Avarana* etc. lead to *vata* vitiation. Any abnormality of urinary tract either structurally or functionally effects the reproductive

system because place of uterus is at behind or beside the bladder (13). The absorption after intake of food altered into blood and during circulation the same manifests as menstrual bleeding (14). Simultaneously excretory system should function properly otherwise any abnormality may take place, one among which can be *Udavartini*.

#### **Probability of drug action:-**

The *Rasnadi ksheera* of the ingredients *Rasna* (*alpenea galangal* – the best *vatahara*) (15); *Vasa* (*adhatoda vasica nees.* – the best *raktapittahara*); *Gokshura* (*Tribulous terrestris Linn.* – the best *vedanahara* & *rasayana* and also *yonivishodhanakara*) (16) and Milk (beneficial for all *Yonirogas* (Kashyap)) (17) - with their properties was used for the management of *Udavartini Yoni Vyapad*. *Tila* (*Sesamum indicum linn.*) (18) *taila* - is the best *yonivishodhana* (19) is used for vaginal tampon. *Tila taila* is the best *vataghna* (alleviation of *vata*) also (20).

The menstrual blood is nothing but fresh bleeding which bleeds from damaged arterial walls appears after withdrawal support of oestrogen and progesterone. The same blood become clot with its property and liquefies by the plasmin which secretes from endometrium during menstruation. More bleeding may lead to disproportion, where the *Vasa* action can be observed as *raktapittahara* (alleviation of *raktapitta*).

To have enough oestrogen to cap the damaged arterioles; For uterine hyperplasia; In increasing the triptic ferment (secretion of endometrium); For correction of regenerated adrenergic neurons at circular fibers of isthmus and internal os by decreasing the hypertonicity and hyperactivity; where action of *Gokshura* as *rasayana* (rejuvenator) can be observed.

Regulation of disrhythmic contraction of increased myometrial activity (which was the result of increased

prostaglandins during menstruation in turn increased vasopressin), Regulation of the prosta glandin synthesize (from arochidinic acid by enzyme cyclo oxygenase in endometrium and partly myometrium) ; Regulation of the vasoconstrictors (endothelins, leukotriens) which stimulate myometrial contraction - by *Rasna* being best *vatahara* drug give result “*sarva dhatu vyuhakarah*” (tissue element formation) . Action of *Gokshura* as *sodhahara* (alleviation of oedema) can be accepted which has abundant nitrates with good excretory property.

View about the action of *pichu* (tampon) needs to study of nerve supply of the internal genital organs. The fibres from the pre aortic plexus of the sympathetic system are continuous with those of the “superior hypo gastric plexus”. While passing over the bifurcation of aorta, it divides into right and left hypogastric nerves, which join the pelvic parasympathetic nerve of the corresponding side and forms the “pelvic plexus (right and left) or inferior hypo gastric plexus or Frankenhauser plexus”. This plexus lies in the loose cellular tissue, posterolateral to the cervix below the uterosacral folds of peritoneum. The pelvic plexus then continues along course of the uterine artery as “paracervical plexus”. The parasympathetic fibres (nervi ergentes) are derived from the S2, S3 and S4 nerves and join the hypogastric nerve of the corresponding side to form pelvic plexus. The fibres are mainly sensory to the cervix. Thus from the “vaginal plexus”, the nerve fibres pass on to the uterus, upper third of vagina, urinary bladder, ureter and rectum. (21) The *tila taila* through *pichu* (tampon) at vaginal cervix will absorb at cell level make the *dhatu* (tissue element) to do respective function.

60 patients were registered for study who had complained pain abdomen during menstruation. Parity wise and age wise classified. Persons who had various tensions, economical problems, persons

who had family problems; students, some employees, housewives etc., are suffering from pain abdn during menstruation. Irregular diet habits played major role. Nulliparous women and parous women both were sufferers. On observation PID, endometriosis and inflammatory condition noticed through USG. Patients with increased thickness of endometrium also complained severe pain abdomen with bleeding in clots. Between 18 to 42 years age group patients are more victims.

Menstrual cycle (table – 5) – in group A early periods noticed in 8 patients. Relief was seen in 6 patients. In group B, 8 patients got regular for 10 patients. Delayed periods observed in 15 patients of group A. 10 patients got regular. In group B, 11 patients got regular for 15 patients. “P value” is more significant in group B.

Menstrual flow (table – 6) - scanty bleeding noticed in 16 patients of group A. 11 became normal. In group B, 11 patients got normal flow for 14 patients. Heavy bleeding noticed in 12 patients of group A. 8 patients got normal flow. In group B, 10 patients got normal flow for 12 patients. “P value” is more significant in group B.

Symptoms (table – 7) - in group A, 12 patients were back ache sufferers. 10 patients got relief. Vomiting was complained by 10 patients. 8 got relief. Head ache complained by 8 patients. 5 patients got relief. In group B, 12 patients got relief for 15 from back ache, 5 patients got relief for 6 patients with vomiting and 7 got relief for 9 patients with head ache. “P value” is more significant in group A in data of vomiting cases.

Through USG (table -8) – in group A, 6 patients were sufferers with PID. 4 patients were cured; 1 patient was cured for 5 patients with endometritis and 11 patients were cured for 15 patients with inflammatory condition. In group B, 5 patients were sufferers with PID. 4 patients were cured; 4 patients were cured for 6 patients with endometritis and 13 patients were cured for 16 patients with

inflammatory condition. “P value” is more significant in group B.

As per grading of pain (table – 10) - Menstruation is painful and daily activities are not affected, considered as “mild” noticed in 8 patients, in which 6 got relief – in group A & 9 patients noticed in group B, in which 7 patients got relief. Patients need not to take analgesics - daily activities affected, considered as “moderate” noticed in 10 patients, in which 7 patients have got relief – in group A & 9 patients were noticed in group B, in which 6 got relief. “P value” is more significant in group B.

As per therapeutic response (table –11) -Complete relief seen in 12 patients of group A & 16 Patients in group B. Partial relief seen in 6 patients of group A & 8 Patients in group B. Relief was not yet seen in 12 patients of group A & 6 Patients in B group.

80% relief noticed in group B. 60% relief noticed in group A.

### **Conclusion -**

In 60 patients 28 were cured totally. 14 were partially cured. 18 patients were remain without relief. PID, Endometritis etc. inflammation may be the reason for not getting the relief. No significant side effects. Both groups were accepted the drug. *Pichu* gave the cognizance in structural pathology. *Artava dosha* is regulated, mental strength is noticed. Ovulation was enhanced in some cases. The combined effect of drugs of *Rasnadi ksheeram* oral and *tila taila pichu* together given relief in more patients than in the patients who were used only *Rasnadi ksheera* oral from *Udavarthini Yoni Vyapad* by normal function of Vascular/circulatory, Nervous, Reproductive and Excretory system. Finally preparation is more effective in the successful management of *Udavarthini Yoni Vyapath*.

### **Aknowledgement**

Principal, DR. B.R.K.R. Govt. Ayurvedic college & Superintendent, Govt. Ayurvedic Hospital Charminar and Erragadda, Hyderabad.

### **References**

1. ; 4<sup>th</sup> edition; 1989; Rajamundry; Sripada Krishna murthy sastry; (Deepika vyakhya) Sa Andhra tatparya sahita Charaka chikitsa sthana Sripada Krishna murthy sastry & sons; ), ch. 30/8 sloka, page -697.
2. Sripada Krishna murthy satri; Andhra tatparya sahita Charaka Chikitsa sthana 4<sup>th</sup> edition; 1989; Sripada Krishnamurthy sastri & sons. Rajamundry. 30<sup>th</sup> ch. / 26, 27 sloka, page 700.
3. Vagbhata; AstangaHrudayamUttara sthanam Andhra tatparya sahita;
4. printed by V. Ramaswamy sastrulu &sons at Vavilla press; Madras; 1931. 33 ch. / Page 368.
5. Andhra tatparya sahita Charaka Chikitsa sthana,; 4<sup>th</sup> edition; Sripada Krishnamurthy sastri; 1989; Sripada Krishnamurthy sastri & sons. Rajamundry. 30<sup>th</sup> ch. /, page 702
6. Vagbhata ; AstangaHrudayamUttara sthanam Andhra tatparya sahita; printed by V. Ramaswamy sastrulu &sons at Vavilla press; Madras; 1931. 33 ch. /Page 373
7. Andhra tatparya sahita Charaka Chikitsa sthana; 4<sup>th</sup> edition; Sripada Krishnamurthy sastri; 1989; Sripada Krishnamurthy sastri & sons. Rajamundry; 30<sup>th</sup> ch. / page 705
8. Vagbhata ; Astanga Hrudayam Uttara sthanam Andhra tatparya sahita; printed by V. Ramaswamy sastrulu &sons at Vavilla press; Madras; 1931. 34 ch. / page 381
9. Shobhaji Hiremath ; Bhaishajya kalpana for Bhaishajya ratnavali ; 1<sup>st</sup> edition; Parimala mudralaya; Bangalore; 2000 ; Page 234.

10. Madadi damodar reddy; Dravyaguna vignanam ; 1<sup>st</sup> edition; November 1987 ; Manchala Anjaiah ; Master art printers; Hyderabad ; 500380 ; page 343, 252,255, 360, 112, 290, 575, 539 and 332.
11. Mukkamala Venkata shastry Telugu commentary on Bhava prakash chikitsa sthana by Bhavamishra, (2<sup>nd</sup> part) Madhyamottara khandamulu, ; 2<sup>nd</sup> edition, 1959, ; Sri panduranga printing works; Stree rogadohikara adhyaya / 36 sloka, Page 1152.
12. D. C. Dutta ; Text book of Gynaecology ; 3<sup>rd</sup> edition; 2001; New central book agency (p) ltd.; Calcutta 700009 (India) 12<sup>th</sup>. Ch. page 168 to 172.]
13. Vagbhata ; Astanga Hrudayam sutra sthanam Andhra tatparya sahita ; printed by V. Ramaswamy sastrulu &sons at Vavilla press ; Madras -1948; ch, 11/ 1 sloka, page 283.
14. Susruta, Susruta samhita chikitsa sthana ; Sa Andhra tatparya sahita;- Vavilla Ramaswami Sastrulu & sons; 1958 ; Madras 21, The Chandrika press. 7<sup>th</sup> ch. / 33 sloka, page – 132.
15. Vagbhatacharya, Astanga Hrudayam sareera sthanam Andhra tatparya sahita ; printed by V. Ramaswamy sastrulu &sons at Vavilla press -1954, Madras - page 85.
16. Bapalal vaidya, Some Contraversial drugs in India, 2<sup>nd</sup> edition, Choukambha Orientalia. Varanasi, 2005, chapter – 2,page 31;
17. Indradev Tripathi & Dr. Daya Shankar thripathi, Vidyaprabha Hindi Commentary on Yogaratnakara, Choukamba Krishnadas academy, Choukamba press, Varanasi, Abhava varga/ page 136;
18. K. C. Chunekar Commentary on Bhavaprakash, Choukamba Bharati academy, Varanasi, 2006 year, page 79.
19. Madadi damodar reddy; Dravyaguna vignanam ; 1<sup>st</sup> edition ; November 1987; Manchala Anjaiah ; Master art printers; Hyderabad; 500380 ; page 213, 317 and 512.
20. Susruta, Susruta samhita Sutra sthana Sa Andhra tatparya sahita - Vavilla Ramaswami Sastrulu & sons ; 1952; Madras, Vavilla press.
21. 45 th ch. / 49 sloka, page 421.
22. Madadi damodar reddy; Dravyaguna vignanam ; 1<sup>st</sup> edition ; November 1987; Manchala Anjaiah ; Master art printers ; Hyderabad ; 500380 ; page 512.
23. Sripada Krishnamurthy satri for Andhra tatparya sahita Charaka samhita sutrasthana, ; 3<sup>rd</sup> edition; 1989; Sunrise printers ; Rajamundry; 13<sup>th</sup> ch. / 15 th sloka, Page 121.
24. Sripada Krishnamurthy satri for Andhra tatparya sahita Charaka samhita sutrasthana, ; 3<sup>rd</sup> edition; 1989; Sunrise printers ; Rajamundry; 27<sup>th</sup> ch. / Page 313
25. D.C. Dutta, text book of gynaecology, 3<sup>rd</sup> edition, 2001, New central book agency (p) ltd, Calcutta -700009. Chapter - 2, page 30 &31.

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