



A Study on Ayurveda Poly Herbal Compound of Yogaratnakar (17 - A.D.) w.s.r. Rakta-Pradara (Abnormal Uterine Bleeding)

Research Article

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Abstract

Rakta Pradara (Abnormal uterine bleeding) is commonest problem encountered by gynecologist in today's practice and incidence becomes higher with degree of civilization. Various treatments prescribed in modern medicine like HRT, Antifibrinolytic agents etc have not proved their definite efficacy In spite of high price and side effect. The present study titled "Clinical study of *Shatavari Yashti yoga on Rakta-Pradara w.s.r. to Yogaratnakar*" was aimed to observe the efficacy of the trial drug *Shatavari Yashti Yoga* (Poly herbal compound) in *Rakta Pradara (Abnormal uterine bleeding)*. The clinical study was conducted on 30 patients selected randomly and divided in to three groups based on the drug for the clinical trial. Group 1- *Shatavari Yashti Yoga with Anupana Tandulodaka*; Group 2 - *Shatavari Yashti Yoga without Anupana* and Group 3 – *Placebo with Tandulodaka*. The Clinical assessment was done on the basis of grading criteria with specific Symptomology of *Rakta Pradara (Abnormal uterine bleeding)* like Amount and duration of bleeding, intermenstrual bleeding, Pain, burning sensation, pallor, and weakness then mean scores levels of these Symptoms before and after the treatment of all three groups were subjected for student paired 't' test for statistical analysis. Conclusion: The results were statistically and clinically significant not only to cure *Rakta Pradara* but also in improving general health of women.

Keyword: *Rakta Pradara, Yogaratnakar, Shatavari Yashti Yoga, Tandulodaka.*

Introduction

Raktapradara is an excessive or prolonged flow of blood occurring in menstrual or inter menstrual period as per manuscripts of Ayurveda it shows close resemblance with Abnormal uterine bleeding where following pattern of abnormal and excessive uterine bleeding is found like **Menorrhagia** - Prolonged or excessive bleeding occurs at regular intervals; **Metrorrhagia** - Irregular, frequent uterine bleeding of varying amounts but not excessive; **Meno-Metrorrhagia** - Prolonged or excessive bleeding at irregular intervals; **Dysfunctional uterine bleeding (DUB)** - Abnormal uterine bleeding not caused by pelvic pathology, medications, systemic disease or pregnancy, is the most common cause of abnormal uterine bleeding but remains a diagnosis of exclusion.(1)

All the above pathologies can be correlated with *Rakta Pradara*. So many preparations have been mentioned in ayurvedic classic for the treatment of *Rakta Pradara*. All these medications have certain fundamental Principles. These are *Rakta shodhaka* (blood purifier), *Sthambhaka* (Haemostatic), *balya* (reduces weakness) etc. *Samprapti vighatana* and effective control and cure in *Rakta Pradara* are the main with

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which the drugs were selected. In pathogenesis of *Rakta Pradara Rasa, Rakta, and vata* dosha are main responsible factors. *Shatavari Yashti Yoga* (Poly herbal compound) Plays an important role to alleviate this pathology, and effectively controls the bleeding. It also helps to cure the complications which occur due to heavy uterine bleeding (pallor, burning sensation, weakness). *Shatavari Yashti Yoga* is pure herbal compound, non hormonal, cost effective and harmless remedy.

Due to limitation of medical therapy as well as surgical therapy of modern science, it becomes necessity of the time to find out an effective harmless therapy with the help of *Ayurveda* to manage the conditions and keeping this in view the polyherbal compound *Shatavari Yashti Yoga with Tandulodaka (SYT)* from *Yogaratanakar (classical lexicon of Ayurveda) from Pradara Chikitsa (chapter deals with gynecological problems)(2)* is selected to conduct the study on most prevalent disorder in present times called *Raktapradara (Abnormal Uterine bleeding)*.

Aims and objectives

1. To provide a simple, safe and non-hormonal herbal drug for the patients of *Raktapradara (Abnormal uterine bleeding)*.
2. Evaluation of therapeutic efficacy of polyherbal compound *Shatavari –Yashti Yoga*.
3. To analyze the influence of vehicle (*Anupana*) i.e. *Tandulodaka (Rice wash water)* in the patients of *Raktapradara (Abnormal uterine bleeding)*.

Material and method

The Material taken for the study were,

- A) Drugs -** *Shatavari* wet root (roots of *Asparagus racemosus Willd.*)
Yashtimadhu dry root (roots of *Glycyrrhiza glabra Linn.*)
Sita / Mishri (Sugar candy)
Vehicle (*Anupana*) - *Tandulodaka (Rice wash water)*

Preparation of Shatavari Yashti Yoga

Shatavari Swarasa (juice of roots of Asparagus racemosus Willd.) + Yashtimadhu churna (powder of roots of Glycyrrhiza glabra Linn) + Sita/mishri (Sugar Candy). Mix well all the contents then this Mixture was dried under hot air oven at 40 °C for 1 day. Next day it was grinded in hammer crusher and granulated for the convenience of drug administration purpose.

Method - Study Design

For the Present clinical Study total number of 39 patients were registered and screened in to 3 groups for the clinical trial. The effects of the therapies were screened in 30 patients who have completing the therapy. The patients were sourced from two different sources-

- 1) OPD & IPD of PG Department of *Dravya Guna* from S.V. Ayurvedic Hospital, Tirupati.
- 2) By organizing weekly free camp in S. P.W. Junior Girls Hostel, Tirupati.

Criteria for inclusion of the patients

1. Age between Menarche and Menopause (12-50 yrs.)
2. Excessive bleeding during menstruation (change of more than 3 soiled pads/day)
3. Passing of large clots.
4. Prolonged Menstrual bleeding (more than 7 days)
5. Excessive bleeding for more than 2 consecutive cycles



6. Intermenstrual Bleeding

Criteria for exclusion of the patients

1. Intrauterine growth such as Myomas, endometrial polyp etc.
2. Cancer of cervix and or uterus.
3. Hb less than 6 gm %.
4. Any other systemic disorders likely to influence menstrual cycle.
5. Case undergoing treatment for any other serious illness.
6. Woman .using an IUCD/ OCP.
7. Venereal disease.
8. Systemic cause mentioned below will also be kept under exclusion criteria.
 - Severe hypertension
 - Liver dysfunction
 - Congestive cardiac failure.
 - Patient having bulky uterus
 - Patients having bleeding from sites other than uterus
 - Patients having coagulation disorder

Investigations

Blood	Hb%, TLC, DLC ,ESR ,CT , BT.
USG	To rule out uterine pathologies.

CLINICAL ASSESSMENT

Subjective Assessment

The patients undergone treatment were assessed for efficacy of *Shatavari –Yashti Yoga* on basis of grading criteria depicted below for improvement in specific symptomatology of *Rakta Pradara*(*Abnormal uterine bleeding*).

1. Bleeding amount in no. of pads

Sr. no.	Bleeding Amount No. of pads/ day	Grade
1.	1-2 pads/day	0
2.	3-4 pads/day	1
3.	5-6 pads/day	2
4.	7and above pads/day	3

2. Duration of flow or menstrual period (In no of days)

Sr. no.	Duration of Bleeding in no of days	Grade
1.	3-5 days	0
2.	6-7 days	1
3.	8-9 days	2
4.	9 and above days	3

3. Interval of Menstruation (in no. of days)

Sr. no.	Interval of Menstruation (Gap between two cycles)	Grade
1.	25-30 days	0
2.	20-24 days	1



3.	15-19 days	2
4.	Less than 15days	3

4. Pallor (Pandutava) (Hb %)

Sr. no.	Pallor	Grade
1.	Normal (>11 gm %)	0
2.	Mild (9-11 gm %)	1
3.	Moderate (7-9 gm %)	2
4.	Severe (<7 gm %)	3

5. Pain (Pain in abdomen / backache)

Sr. no.	Body ache	Grade
1.	No pain	0
2.	Mild pain	1
3.	Moderate pain	2
4.	Severe pain	3

6. Burning Sensation (Daha)

Sr. no.	Burning sensation	Grade
1.	No burning	0
2.	Occasional burning	1
3.	Often mild burning	2
4.	Severe burning	3

7. Weakness (Daurabalya)

Sr. no.	Weakness	Grade
1.	Feeling weakness Occasionally on doing Heavy work	0
2.	Feeling weakness After doing extra work then routine work	1
3.	Feeling weakness After doing Routine work	2
4.	Feeling weakness Even without Routine work	3

TRIAL GROUPS

In the present clinical Study total number of 39 patients were registered and 9 patients could not be followed So 30 patients who have completing the therapy are alienated in to 3 groups based on the drug for the clinical trial.

Group 1- SYT (*Shatavari Yashti with Tandulodaka*)

Group 2- SY (*Shatavari Yashti Yoga*)

Group 3- PL (*Placebo with Tandulodaka*)

Sr. No	Group name	Dose	Vehicle	Time of administration	Duration
1.(SYT)	<i>Shatavari Yashti Yoga</i>	5 gm	<i>Tandulodaka</i>	Twice a day before meals	2 menstrual cycle or 2 months.
2.(SY)	<i>Shatavari Yashti Yoga</i>	5 gm	-	Twice a day before meals	2 menstrual cycle or 2 months.



3.(PL)	<i>Tandulodaka</i>	50 ml	-	Twice a day before meals	2 menstrual cycle or 2 months.
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Dose design

Drug	Dose	Vehicle	Time administration	of	Duration of treatment
<i>Shatavari</i> <i>Yashti Yoga</i>	5 - gm	<i>Tandulodaka</i>	Twice a Day before meals		2 month with follow up for Next cycles

Follow Up Study

During the maneuver all patients were regularly analyzed and advised to attend O.P.D. after every 15 days till the end of trial and the patients from the Camp is monitored weekly. The notable changes were duly recorded. Laboratory investigations were carried out before and after the commencement of trial for purpose of inclusion criteria.

Results

The results were assessed before and after the treatment according to the positive changes in the subjective symptoms. Further statistical analysis was done by applying Student Paired 't' test and 'P' value was calculated by referring to Fischer's table at the corresponding level of degree of freedom.(3) Total relief of the therapy was assessed on basis of percentage of relief obtained:

Percentage of relief	Effect
More than 75 %	Cured
51-75 %	Markedly improved
26- 50 %	Moderately Improved
Less than 25 %	No improvement

In the present study 39, patients were registered out of which 9 patients dropped out during the trial and in remaining 30 patients the clinical study was completed. The study shows a marked difference in the subduing of symptoms in all the trial groups. The main symptoms studied were the amount and duration of bleeding, Pain, increased Hemoglobin levels, burning sensation, and generalized weakness. Thus it is clear from the study that the *Shatavari Yashti Yoga* helps in the Management of *Rakta Pradara* (Abnormal uterine bleeding).

EFFECT OF THE TRIAL DRUG OF GROUP – 1 (SYT) ON VARIOUS SUBJECTIVE SYMPTOMS**Table no. 1 Showing Statistical analysis of amount of bleeding (in no. of pads)**

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Amount of Bleeding (in no. of pads)	3.9	0.2	3.7	0.8233	0.2603	14.212	P<0.0001	Extremely significant

**Table no. 2: Showing Statistical analysis of Duration of Bleeding (In no. of day)**

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Duration of Bleeding (in no. of days)	6.6	2.5	4.1	2.205	0.6403	6.403	0.0001	Extremely significant

Table no. 3: Showing Statistical analysis of Interval of menstrual Bleeding (In no. of day)

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Intermenstrual Bleeding (in no of days)	11.2	13.8	-2.60	2.989	0.9452	2.751	0.0244	Significant

Table no. 4: Showing Statistical analysis of Pain

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Pain	1.3	1.0	0.3	0.4030	0.1528	1.964	0.0811	Not Significant

Table no. 5: Showing Statistical analysis of Pallor (Pandutava)

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Pallor	9.560	10.680	-1.120	0.4733	0.1497	7.483	0.0001	Extremely significant

Table no. 6: Showing Statistical analysis of burning sensation (Daha)

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Burning sensation	0.4	0.0	0.4	0.5164	0.1633	2.449	0.0368	Significant

Table no. 7: Showing Statistical analysis of weakness (Daurabalya)

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Weakness	0.6	0.0	0.6	0.6992	0.2211	2.174	0.0239	Significant

EFFECT OF THE TRIAL DRUG OF GROUP – 2 (SY) ON VARIOUS SUBJECTIVE SYMPTOMS**Table no. 8 Showing Statistical analysis of amount of bleeding (in no. of pads)**

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Amount of Bleeding	3.4	1.6	1.8	1.989	0.6298	2.862	0.0187	Significant

**Table no. 9 Showing Statistical analysis of Duration of bleeding (in no. of days)**

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Duration of Bleeding	5.7	3.1	2.6	3.373	1.067	2.438	0.0375	Significant

Table no. 10 Showing Statistical analysis of intermenstrual bleeding (in no. of days)

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Intermenstrual Bleeding	8.9	8.4	0.5	3.689	1.167	0.4286	0.6783	Not Significant

Table no. 11 Showing Statistical analysis of Pain

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Pain	1.1	0.9	0.2	0.4216	0.1333	1.5	0.1679	Not Significant

Table no. 12 Showing Statistical analysis of Pallor

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Pallor	5.120	5.240	-0.120	0.1398	0.0442	2.714	0.0239	Significant

Table no. 13 Showing Statistical analysis of burning sensation

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Burning sensation	0.4	0.0	0.4	0.5164	0.1633	2.4495	0.0368	Significant

Table no. 14 Showing Statistical analysis of weakness

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Weakness	0.4	0.0	0.4	0.5164	0.1633	2.449	0.0368	Significant

Effect of The Trial Drug Of Group – 3 (PI) On Various Subjective Symptoms**Table no. 15 Showing Statistical analysis of amount of bleeding (in no. of pads)**

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Amount of Bleeding	4.1	1.8	2.3	1.703	0.5385	4.271	0.0021	Very Significant

Table no. 16 Showing Statistical analysis of Duration of bleeding (in no. of days)

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Duration of Bleeding	7.4	4.9	2.5	1.716	0.5426	4.607	0.0113	Significant



Table no. 17 Showing Statistical analysis of intermenstrual bleeding (in no. of days)

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Intermenstrual Bleeding	6.4	7.2	-0.8	2.530	0.8000	1.000	0.3434	Not Significant

Table no. 18 Showing Statistical analysis of Pain

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Pain	0.5	0.5	0	0	0	0.000	P>0.999	Not Significant

Table no. 19 Showing Statistical analysis of Pallor (Pandutava)

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Pallor	5.080	5.080	0	0	0	0.000	P>0.999	Not Significant

Table no. 20 Showing Statistical analysis of burning sensation (Daha)

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Burning sensation	0.5	0.1	0.4	0.5164	0.1633	2.449	0.0368	Significant

Table no. 21 Showing Statistical analysis of weakness (Daurabalya)

Symptoms	Mean		Diff.	SD	SE	't'	P	Results
	BT	AT						
Weakness	0.2	0.2	00	00	00	0.000	P>0.999	Not Significant

Table no. 22 Total Effect of Therapy in 30 Patients

Result	No. of Patients		
	Group 1 (SYT)	Group 2 (SY)	Group 3 (PL)
Cured (More than 75%)	06	01	03
Marked Improvement (50 to 75% relief)	01	05	01
Moderate Improvement (25 to 50 % relief)	02	04	00
No Improvement (< 25% relief)	01	00	06



DISCUSSION

- ❖ The assessment of the results was made by adopting the standard methods of scoring the signs and symptoms. All the observations regarding the changes in the subjective parameters like the amount of bleeding, duration of bleeding, intermenstrual period and associated symptoms like body pain, pallor and burning sensation and weakness were assessed clinically and statistically.
- ❖ **Effect on Amount of bleeding:** On statistical analysis the result was extremely significant in Group 1(SYT) ($p < 0.0001$) while in Group 3 (PL) it was very Significant and in Group 2 (SY) it found to be Significant. Clinically also it gives the corresponding result, the amount of bleeding is found to be reduced in all group.
- ❖ **Effect on Duration of bleeding:** On statistical analysis the result was extremely significant in Group 1(SYT) while in group 2 (SY) and 3 (PL) it is Significant.
- ❖ **Effect on Intermenstrual bleeding:** On Statistical analysis the result was significant in group 1 while in group 2 (SY) and group 3 (PL) it is not significant.
- ❖ **Effect on Pain:** On Statistical analysis the result was not significant in any of the trial group.
- ❖ **Effect on Pallor:** On statistical analysis the result was extremely significant in group 1(SYT) while in group in group 2 (SY) it found to be Significant and 3 (PL) it was not Significant.
- ❖ **Effect on Burning Sensation:** On statistical analysis the result was significant in all groups.
- ❖ **Effect on Weakness:** On statistical analysis the result was significant in group 1(SYT) and group 2 (SY) while in group 3 (PL) it was found not be Significant.
- ❖ **Overall effect of therapy:**
- ❖ Out of three Groups studied, in Group 1(SYT) marked improvement was seen in the one Patient, moderate improvement in two patients and 6 patients were completely cured. In Group 2(SY) marked improvement was seen in five cases, no improvement was seen in one case, moderate improvement was seen in four cases and one patient is completely cured. In Group 3 (PL) marked improvement was seen in one patient and moderate improvement was not seen in any case. No improvements were seen in six cases while three patients were completely cured.
- ❖ On comparing the effectiveness of the three Groups it was found that the relief in symptoms was clinically and statistically found to be significant.
- ❖ Utmost positive findings are seen in Group 1(SYT) where quite a lot of symptoms are completely cured rather than group 2(SY) and 3(PL) , whereas group 3 also shows good results in curing symptoms but all symptoms are not totally alleviated.
- ❖ In comparison with Group 3(PL); Group 2(SY) illustrates immense results in healing the symptoms. It shows that in comparison of the results of the groups; Group 1(SYT) depicts an enormous outcome of *Shatavari Yashti yoga*.
- ❖ The results clearly indicate that *Shatavari Yashti Yoga* is effective remedy to cure *Raktapradara (Abnormal uterine bleeding)*.

CONCLUSION

- ❖ *Shatavari Yashti Yoga* is found effective in *Raktapradara (Abnormal uterine bleeding)*. It effectively reduced amount of bleeding, duration of bleeding, reduces pallor, and *balya* (weakness is reduced).



- ❖ Overall effect of therapy concludes that the first group of the patients who have received *Shatavari Yashti Yoga with Tandulodaka* has shown highly significant results in comparison with rest of other groups.
- ❖ *Shatavari Yashti Yoga with Tandulodaka* is Non Hormonal, Cost Effective, Harmless and boon for the Patients of *Raktapradara (Abnormal uterine bleeding)*.

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