

Management of dysfunctional uterine bleeding with *Bhumyamalki*

Neelam* & Jaya

Department of Prasuti Tantra, Faculty of Ayurveda, Institute of Medical Sciences,
Banaras Hindu University, Varanasi 221 005, Uttar Pradesh
neelamvns07@hotmail.com

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Rhythm and periodicity are the characteristics of a woman's life, so is her menstruation. Every healthy woman menstruates regularly and rhythmically every month during her reproductive era. Any change in this normal rhythm brings curious concern to women. Dysfunctional uterine bleeding (DUB), one of the most common and significant complaints is seen in about 10-15% of woman attending Gynecological clinic. DUB is defined as the occurrence of excessive abnormal uterine bleeding for which organic causes or pelvic pathology cannot be found. *Bhumyamalki* is the drug, which has been described in various Ayurveda text books for such type of bleeding. The aim of the study is to see the effect of *Bhumyamalki* in cases of DUB. *Bhumyamalki* showed better results than the control group, which was treated with triquilar a triphasic hormonal tablet.

Keywords: Dysfunctional uterine bleeding, *Bhumyamalki*, DUB, Abnormal uterine bleeding, Ayurveda drug

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Women's greatest attributes are rhythm, periodicity and pattern in her life, so are menstruation, conception and motherhood, the creative aspects of procreation. In healthy woman, menstruation sets in approximately between the age of 12-14 yrs, and persists through out reproductive life¹⁻³. During active reproductive period, menstruation occurs at the interval of 28 days and the duration most often varies from 3-5 days, but duration more than this is considered as abnormal. Total loss of blood is 50-60 ml with an average of 35 ml change in normal volume or duration of menstrual bleeding is commonest cause of deterioration of women's health⁴. Dysfunctional uterine bleeding (DUB) is excessive abnormal uterine bleeding for which organic causes or pelvic pathology cannot be found^{3,5-8}. The bleeding may be abnormal in frequency, duration or amount or combination of these three^{1-3,7,8}. Good numbers of researches have brought few recipes sufficiently efficacious, however, the attempt to find new recipes or remedies never ends because various treatments, prescribed in modem medicine like hormone therapy, antiprostaglandins and antifibrinolytic agent, NSAIDS, etc. have not proved their definite efficacy in spite at high price and side effects^{3,9,10}. *Bhumyamalki* is such Ayurvedic drug, which has been described for irregular bleeding in various Ayurveda texts^{1,11-16}.

Methodology

Evaluation of the efficacy of *Bhumyamalki* in DUB was the aim of the study. Clinical study was carried out on patient attending to the Out Patient Department of *Prasuti Tantra*, SS Hospital, BHU, Varanasi. Initially 90 cases having complaints of heavy blood loss during menstrual period were randomly selected for the study. Patients aged between 15-45 yrs with complaints of excessive bleeding per vaginum during menstruation either in amount or in duration or both or during intermenstrual period for 3 consecutive menstrual cycles were included. Patient using oral contraceptive pills or IUCD for contraception or hormonal treatment, women having systemic illness like hypertension, tuberculosis, diabetes, anemia, thyroid dysfunction, coagulation disorders, any organic pathology of reproductive system, history of recent delivery or abortion and who were not ready to fulfill the protocol were excluded from the study (Table 1). Women were advised to use standard size diapers 15 x 7.5 x 2.5 cm made of cotton, and scoring was done purely on the basis of patient's statement (Table 2). After detail history, complete examinations and investigations, total 50 cases were selected and divided into two groups (Table 3).

Total four follow-ups were made at one month interval, three were with medicine and last 4th one was without medicine. In each follow up change in amount, duration, character inter-menstrual period of menstrual

*Corresponding author

blood loss and associated symptoms were observed and noted. Results were assessed on the basis of average amount of blood loss, normal duration (3-5 days) of blood loss, normal intermenstrual period (28-30 days), relief in pain and normal consistency of menstrual blood. Patients were declared cured, when all the above parameters were fulfilled; improved, when 4 out of above 6 parameters were fulfilled; partially improved, when 2 out of above 6 parameters were fulfilled and unchanged, when none of the 6 parameters were fulfilled.

Results and discussion

During observation it was found that most of the women having excessive or irregular bleeding were

from age group 36-40 yrs multigravid or multiparous women had married life more than 5 yrs. Statistically, the difference between the groups was non-significant. The disease is commonly found just before menopause due to hormonal imbalance. Further, the repeated coitus and deliveries may be the causative factor to produce active or passive congestion of the reproductive organs, which cause excessive uterine bleeding due to increased vascularity. Mean amount of blood loss was seen 4.48; 3.81; 3.47 and 3.47 in group A and 5.36; 5.01; 4.71 and 4.71 in group B during 1st, 2nd, 3rd and 4th follow-ups, respectively (Table 4). On statistical analysis between initial and different follow-ups, it was seen that significant results in group A and highly significant results in group B

Table 1—Incidence of age, gravidity, parity, marital status

Variables	Mean \pm SD and statistical values in different groups			
	Total cases n=50	Group A n=25	Group B n=25	t & p value
Age (in years)	34.22 \pm 8.82	35.24 \pm 7.79	33.20 \pm 9.80	t= 0.82; p>0.05, NS
Gravidity (in nos)	2.8 \pm 1.21	2.8 \pm 1.23	2.72 \pm 1.20	t= 0.46; p>0.05, NS
Parity (in nos)	2.52 \pm 1.31	2.48 \pm 1.36	2.52 \pm 1.29	t= 0.11; p>0.05, NS
Marital status (in yrs)	12.43 \pm 8.23	11.73 \pm 7.59	12.51 \pm 7.83	t= 0.36; p>0.05, NS

Table 2—Blood loss during menstrual period and usage of diapers

Parameters	Criteria	Score
Amount of menstrual bleeding	Complete soakage of 1-2 pads in 24 hours (Average)	0
	Complete soakage of 3-4 pads in 24 hrs (Moderately excessive)	1
	Complete soakage of 5-6 pad in 24 hrs (Excessive)	2
	Complete soakage of 7 or more pads in 24 hrs (Very excessive).	3
Duration of menstrual bleeding	2-3 days - Normal	0
	4-5 days - Moderately prolonged	
	6-7 days - Prolonged	2
	8-10 days - Very prolonged	3
Intermenstrual period	26-30 days - Normal	0
	21-25 days - Short	1
	15-20 days - Very short	2
Pain during menstruation	No pain	0
	Mild pain, woman complaint of pain, but do not require any drug for relief.	1
	Moderate pain, woman complaint of pain; takes one or two doses of drug for relief. The pain does not affect routine work.	2
	Severe pain, women complaint of pain, takes 3-4 doses of drug for relief. The pain influences general activity.	3

Table 3—Groups of patients according to treatment

Groups	Drug	Dose	Duration	No of cases
Group A	Tab Trigular (Triphasic hormonal tab)	1 Tablet once a day	For 21 days (Started from 5 th day of menses x 3 consecutive cycle	25
Group B	<i>Bhumymlaki Ghana Satva</i>	1 Capsule (500 mg) three times in a day	3 consecutive cycle	25

started from 3rd follow up. Mean duration of blood loss in days was seen 5.12; 4.01; 3.24 and 3.24 in group A and 5.61; 5.39; 4.43 and 4.43 in group B during 1st, 2nd, 3rd and 4th follow-ups, respectively. On statistical analysis between initial and different follow-ups, it was seen that highly significant results were observed from 3rd follow-up in both the groups. When comparison was done in amount and duration between A and a B group, significant difference was observed in group B than group A.

Mean intermenstrual period in days was seen 23.8; 24.24; 25.16 and 25.16 in group A and 24.32; 24.84; 25.04 and 25.04 in group B during 1st, 2nd, 3rd and 4th follow-ups, respectively. On statistical analysis between initial and different follow-ups, it was

observed that results were insignificant in both the groups. When comparison was done between A and B group insignificant difference was seen. Mean score of pain was seen 0.84; 0.68; 0.69 and 0.68 in group A while it was 1.00; 0.88; 0.52 and 0.56 in group B during 1st, 2nd, 3rd and 4th follow-ups, respectively. On statistical analysis between initial and different follow-ups, results were found non-significant in group A and significant in group B from the 3rd follow-up. When comparison was done between A and B group, non-significant difference was observed (Tables 5 & 6).

Initially, clotted consistency of menstrual blood was present in 28% (Group A) and 32% (Group B) women, which was changed towards normal

Table 4—Change in the amount and duration of blood loss

Variables	Mean \pm SD in different groups									
	Group A (n=25)					Group B (n=25)				
	Initial	1 st	2 nd	3 rd	4 th	Initial	1 st	2 nd	3 rd	4 th
Amount of blood loss	5.08 \pm 1.73	4.48 \pm 1.89	3.81 \pm 1.59	3.47 \pm 1.54	3.24 \pm 1.54	5.52 \pm 1.29	5.36 \pm 1.55	5.01 \pm 1.52	4.71 \pm 1.74	4.71 \pm 1.74
Duration of blood loss	6.56 \pm 2.14	5.12 \pm 1.23	4.01 \pm 1.63	3.24 \pm 1.47	3.24 \pm 1.47	5.96 \pm 1.83	5.61 \pm 1.97	5.39 \pm 2.06	4.43 \pm 1.74	4.43 \pm 1.74
Intermenstrual period	24.12 \pm 4.09	23.8 \pm 3.88	24.2 \pm 4.23	25.2 \pm 3.15	25.2 \pm 3.15	23.42 \pm 3.84	24.32 \pm 3.20	24.84 \pm 3.74	25.04 \pm 3.30	25.04 \pm 3.30
Pain	1.00 \pm 0.82	0.84 \pm 0.75	0.68 \pm 0.69	0.69 \pm 0.70	0.68 \pm 0.75	0.8 \pm 0.91	1.00 \pm 0.87	0.88 \pm 0.83	0.52 \pm 0.71	0.56 \pm 0.82

Table 5—Comparison in different variables

Variables	Group	t and p value in different Follow-up in both groups			
		Initial vs I	Initial vs II	Initial vs III	Initial vs IV
Amount of blood loss	A	1.19 >0.05 ^{NS}	2.41 <0.05 ^S	2.45 <0.025 ^S	2.47 <0.02 ^S
	B	1.37 >0.05 ^{NS}	2.27 <0.05 ^S	2.77 <0.025 ^{HS}	2.71 <0.01 ^{HS}
Duration of blood loss	A	2.11 <0.05 ^S	2.75 <0.01 ^{HS}	2.87 <0.01 ^{HS}	2.87 <0.01 ^{HS}
	B	1.28 >0.05 ^{NS}	2.12 <0.05 ^S	2.93 <0.01 ^{HS}	2.9 <0.01 ^{HS}
Inter-menstrual period	A	1.49 >0.05 ^{NS}	1.67 >0.05 ^{NS}	1.89 >0.05 ^{NS}	1.89 >0.05 ^{NS}
	B	1.24 >0.05 ^{NS}	1.17 >0.05 ^{NS}	1.79 >0.05 ^{NS}	1.79 >0.05 ^{NS}
Pain	A	0.87 >0.05 ^{NS}	1.59 >0.05 ^{NS}	1.73 >0.05 ^{NS}	1.41 >0.05 ^{NS}
	B	0.41 >0.05 ^{NS}	0.73 >0.05 ^{NS}	2.54 >0.02 ^S	2.33 <0.05 ^S

Table 6—Comparison of change in amount and duration of blood loss

Variables	t and p value in different follow-ups in both groups			
	I A vs B	II A vs B	III A vs B	IV A vs B
Amount of blood loss	1.76 >0.05 ^{NS}	2.50 <0.02 ^S	2.69 <0.02 ^S	2.69 <0.02 ^S
Duration of blood loss	1.62 >0.05 ^{NS}	2.22 <0.05 ^S	2.59 <0.02 ^S	2.59 <0.02 ^S
Inter-menstrual period	1.51 >0.05 ^{NS}	0.48 >0.05 ^{NS}	0.13 <0.05 ^{NS}	0.13 <0.05 ^{NS}
Pain	0.73 >0.05 ^{NS}	0.91 >0.05 ^{NS}	0.60 >0.05 ^{NS}	0.54 >0.05 ^{NS}

Table 7—Consistency of menstrual blood in subsequent follow-ups

Groups	Follow-ups									
	Initial		1 st		2 nd		3 rd		4 th	
	P	A	P	A	P	A	P	A	P	A
Group A	7	18	5	20	4	21	2	23	2	23
Group B	8	17	7	18	4	21	1	24	1	24
P-Clots present	$\chi^2=0.09$		$\chi^2=0.44$		$\chi^2=0.00$		NA		NA	
A-Clots absent	p>0.05 NS		p>0.05 NS		NS		NS		NS	
Comparison of χ^2 in between the group										

Table 8—Results of total cases and both the groups

Results	Total cases (n=50)		Group A (n=25)		Group B (n=25)	
	No.	%	No.	%	No.	%
Cured	25	50	12	48	13	52
Improved	11	22	06	24	05	20
Partially improved	09	18	04	16	05	20
Unchanged	05	10	03	12	02	8

consistency from the 1st follow-up in both the groups (Table 7). Remarkable improvement was observed from the 3rd follow-up in both the groups (Table 8). Cure rate in group A was found 48%, while in group B it was 52%. Group B, which was treated with *Bhumyاملaki* showed better results than group A. Triquilar is triphasic hormonal pill varied at different time periods to mimic hormonal changes during menstrual cycle. This regime is more physiological with lesser incidence of breakthrough bleeding and it regulates normal menstrual cycle by which good results, i.e. 48% were seen in group A. Due to antifertility effect of the alcohol extract of *Bhumyاملaki* whole plant, analgesic effect, antiinflammatory effect and other properties like *Sheetavirya*, *Madhur Vipaka* and *Madhur, Tikta, Kasaya, Rasa* it helps in reducing the bleeding¹⁶⁻¹⁸. Further, *Raktashodhak yonidoshhar* properties of *Bhumyاملaki* proved to be effective in DUB¹⁸.

Conclusion

Bhumyاملaki gives better result in the dysfunctional uterine bleeding. *Bhumyاملaki* effects in excessive or prolonged bleeding by curtailing duration and amount of blood loss, relief in pain and improvement in consistency of blood. *Bhumyاملaki*

has antiinflammatory and analgesic properties, which might have influenced vascularity of reproductive system. Further, due to antifertility property or hormone like activity, it helps in reducing the bleeding and shows beneficial effects in DUB.

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