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Treatment Of Uterine Fibroid Through Complementary Medicine And Alternative Therapy Approaches: A Case Series

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ABSTRACT

The study aims to provide the alternative methods for the management of uterine fibroid. In this case series, we conducted a case series of 8 patients with symptomatic uterine fibroids. The patients were assigned to take Ayurvedic medicines and Intrauterine Uttarbasti with 4-5ml with Kapharbuda-har oil for 3 months. Intrauterine Uttarbasti was given for 7 days in a month, after the end of mensuration. Investigations like USG (pelvis region) and % haemoglobin, were conducted before and after the treatment. Investigations revealed a decrease in uterine fibroid size, after the treatment. In 3 patients there was about 40%-80% reduction in fibroid size. In 3 patient's fibroids were completely cured while in 2 patients, 16-27 % of fibroid size got decreased. Concurrently, menstrual blood flow as well as other symptoms like abdominal pain associated with fibroids also got resolved, after the treatment. Based on the results, we can conclude that Ayurvedic treatments are very effective in managing the size of uterine fibroid as well as symptoms associated with uterine fibroid. Further research is required to evaluate the mechanism of drug action, effectiveness and unfavourable consequences of the treatment.

Keywords: *Uterine fibroid, arbuda, uttarbasti**,** medicinal therapies, Ayurveda, menstrual blood flow, premenopausal*

INTRODUCTION

Uterine fibroids (leiomyomas) are the most common pelvic tumors in women of reproductive age [1, 2]. Over 77% of women of reproductive age have uterine fibroids, including symptomatic and asymptomatic cases [3]. Although the majority of fibroids are asymptomatic, about 50% of women with fibroids experience severe and usually debilitating symptoms such as excessive menstrual flow, pelvic pain, discomfort, pressure symptoms, pregnancy related complications and fertility [4]. The present therapeutic options for treatment of leiomyoma ar[1]e insufficient, and the gold standard remains surgical excision of the tumor via hysterectomy or myomectomy. Currently there is currently no approved appropriate medical therapy For uterine leiomyoma [5], which is an issue of major concern. The most commonly used medications for non-surgical treatment include GnRH agonists that lower the circulating levels of estradiol (E2) and progesterone, GnRH antagonists and selective progesterone receptor modulators (sPRMs) like ulipristal acetate (UPA) [6], [7]. Unfortunately, there are many serious drawbacks of current therapy options, such as osteoporosis and menopausal symptoms, which are major adverse side effects of GnRH agonist (GnRHa) [5]. The high cost and post-operative

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consequences of surgical treatments, as well as the loss of women's reproductive ability, are other drawbacks of current therapy options [5], [8], [9].

Patients require alternative and conservative treatment options because of the severe side effects, and poor effectiveness of the current therapeutic modules, and high recurrence rate post therapy. Ayurveda is an ancient science of medicine, in which a treatment for uterine fibroids has not been described as such but an account of diseases like Apachi [10], Galgand [11], Granthi [12] and Arbuda [13] have been described as cell overgrowths. Uterine fibroids are also overgrowth of cells and exhibit remarkable similarities in symptoms, prognosis and treatment, fibroid and can be correlated with Arbuda and considered as Garbhashay-gat arbuda in Ayurveda. So, there is hope and a way to manage uterine leiomyoma using Ayurvedic approaches without any negative side effects based on the treatment principles and medications described for Arbudas.

RESEARCH METHODS

Participants

In this case-series clinical trial, we enrolled 8 patients from district Varanasi situated in Uttar Pradesh state, India. All the women included in the study were premenopausal women of ages, between 18 to 50 years, diagnosed with uterine fibroids, as per USG report. All the patients were married and had heavy menstrual bleeding and lower abdominal pain. All the patients were having normal respiratory, cardiovascular and Central nervous system functioning. Unmarried, menopausal and malignant women were excluded from the trial. Also, all patients had not taken any hormonal therapy before treatment as well as during treatment.

Trial design

Intrauterine Utatrbasti with 4-5 ml of Kapharbuda-har oil was given to all the study patients for 7 consecutive days after the cessation of menstruation. The treatment regimen was repeated for 3 cycles. Concurrently, patients were also advised to take oral medications. This trial was approved by the Institutional Ethics Committee of Institute of Medical Science, Banaras Hindu University, U.P. and registered with CTRI (Clinical Trials Registry). The registration number of the trial is CTIR/2022/05/042372 which was updated every 6 months. Each of the participants gave their written, informed necessary consent and have given permission for the publication of case along with reports and other clinical information in the journal. The patients were made aware that their names or identity wouldn't be published, but anonymity cannot be guaranteed.

Table 1: Medications with prescription:

Sr. No.	Prescribed drugs	Quantity	Dose	References
01.	Pushyanug Churna	1 gm	Twice a day	[14]
02.	Godanti Bhasm (gypsum)	500 mg	Twice a day	[15]
03.	Bol Parpati	250 mg	Twice a day	[16]
04.	Lodhrasava/Kanakasav	20 ml	Twice a day	[14, 17]
05.	Iron supplement	1 tablet	Once a day	[18]
06.	Medha vati *	1 tablet	Thrice a day	[19]

*only given to case 01 patient to control her Blood pressure.

Case 1 A 48-year-old married patient with a complaint of excessive menstrual bleeding with the passage of clot and generalized weakness since 4-5 months visited Prasuti Tantra outpatient department (OPD) of Banaras Hindu University on 20th July, 2021. She had 3 children and her last delivery was 22 years back. She had 4-5 days/27 days of menstruation, using 4-5 pads per day. Her past history was unremarkable and her father had hypertension. She was diagnosed with uterine fibroids of size, 21.6 mm × 21.0 mm and 21.6 mm × 10.0 mm as per USG report. Her Speculum and vaginal examination revealed a firm and retroverted uterus with slight tenderness. Her blood pressure was 140/80 mm Hg and her pulse rate was 82 pulses/min. Abdominal examination was normal.

Case 2 A 32 years old married patient with a complaint of excessive menstrual bleeding with generalized weakness, breathlessness and burning sensation in palm and sole for 3 years, visited Prasuti Tantra OPD of Banaras Hindu University on 31st August, 2021. She had one child of 7.5 years, was born through the lower segment cesarian section (LSCS) and also had a history of miscarriage. She had 6-7 days/25 days of menstruation, using 8-10 pads per day. Her past history and family history were unremarkable. She was diagnosed with uterine fibroid of size, 19.8 mm ×15.0 mm, as per USG report. Her Speculum and vaginal examination revealed a healthy cervix, a firm, bulky and anteverted uterus with slight tenderness. Her blood pressure was 108/70 mm Hg and her pulse rate was 90 pulses/min. Abdominal examination revealed tenderness in the hypogastric region.

Case 3 A 30 years old married patient with complaint of excessive menstrual bleeding with the passage of a clot and pain in the lower abdomen for 10 months, visited the OPD of Prasuti Tantra of Banaras Hindu University on 28 September 2021. She had 2 children, both were born through LSCS. She had 6 days/30 days of menstruation, using 3-4 pads per day. She had experienced chickenpox 12 years back and her family history was unremarkable. She was diagnosed with uterine fibroid of size, 33 mm X 32.0 mm, as per the USG report. Her Speculum and vaginal examination revealed a healthy cervix, firm, bulky and retroverted uterus with no tenderness. Her blood pressure was 118/80 mmHg and pulse rate was 80 pulses/min. Abdominal examination revealed an LSCS scar and Stria gravidrum.

Case 4 A 28 years old married patient with a complaint of excessive menstrual bleeding, pain in the lower abdomen for 8 months and backache for 7-8 months visited Prasuti Tantra OPD (outpatient department) of Banaras Hindu University on 14 October 2021. She was nulliparous. She had 6-7 days/20 days of menstruation, using 6-7 pads per day. Her past history and family history were unremarkable. She was diagnosed with uterine fibroid of size, 16.9 mm × 9.6 mm, as per the USG report. Her Speculum and vaginal examination revealed a healthy cervix, firm, bulky and anteverted uterus with no tenderness. Her blood pressure was 110/70 mmHg and her pulse rate was 86 pulses/min. Abdominal examination revealed Stria gravidrum.

Case 5 A 40-year-old married patient with complaints of excessive menstrual bleeding and backache, visited Prasuti Tantra OPD (outpatient department) of Banaras Hindu University on 12th April 2022. She had 2 children (15 years old daughter and 8 years son) born through LSCS. She had (10 years back) a history of miscarriage of a 3-month fetus. She had 5-6 days/30 days of menstruation, using 5-6 pads per day. She had experienced typhoid (in 1996) and chickenpox in an early age. Her father had diabetes for 4 years and her mother had hypertension from 15 years. She was diagnosed with uterine fibroid of size, 18.4 mm×17.2 mm, as per the USG report. Her Speculum and vaginal examination revealed a healthy cervix, a firm, bulky and anteverted uterus with no tenderness. Her blood pressure was 124/82 mmHg and her pulse rate was 86 pulses/min. Abdominal examination was normal.

Case 6 A 33 years old married patient with a complaint of excessive menstrual bleeding with the passage of a clot since 2 years, backache for 3 months and drowsiness for 1 week, visited Prasuti Tantra OPD of Banaras Hindu University on 30th May, 2022. She had two children of ages 8 years and 5 years. She had a history of miscarriage of a 1.5-month fetus. She had 6 days/23 days of menstruation, using 3-4 pads per day. She had experienced Dengue (in 2019) and Malaria (in 2013). Her family history was unremarkable. She was diagnosed with uterine fibroid of size, 9.3 mm × 8.3 mm, as per the USG report. Her Speculum and vaginal examination revealed a healthy cervix, a firm, bulky and anteverted uterus with no tenderness. Her blood pressure was 110/80 mmHg and her pulse rate was 92/min. Abdominal examination revealed Stria gravidrum.

Case 7 A 28 years old married patient with a complaint of prolonged menstrual bleeding, continuous for 17 days, visited Prasuti Tantra OPD of Banaras Hindu University on 13th March, 2023. She was nulliparous. She had 10 days/30 days of menstruation, using 2-3 pads per day. She has been taking psychiatric medication for 6 years and her family history was unremarkable. She was diagnosed with uterine fibroid of size, 7.6 mm × 6.5mm, as per the USG report. Her Speculum and vaginal examination revealed a healthy cervix, a firm and anteverted uterus with no tenderness. Her blood pressure was 122/84 mmHg and her pulse rate was 82/min. Abdominal examination was normal.

Case 8 A 40-year-old married patient with a complaint of excessive menstrual bleeding and lower abdominal pain for 8 years, visited Prasuti Tantra OPD (outpatient department) of Banaras Hindu University on 17th April, 2023. She had two children 17 years and 13 years old; both were born by normal delivery. She had 4 days/30 days of menstruation, using 4-5 pads per day. Her past history and family history were unremarkable. She was diagnosed with uterine fibroid of size, 21.7 mm × 23.5 mm, as per the USG report. Her Speculum and vaginal examination revealed an erosion cervix, a firm, bulky and retroverted uterus with no tenderness. Her blood pressure was 118/82 mmHg. and pulse rate was 90/min. Abdominal examination was normal.

All the patients were treated using Uttarbasti procedure described in Ayurveda with 4-5ml with Kapharbuda-har, for 3 cycles, after cessation of menstrual bleeding for 7 consecutive days, as well as Ayurvedic medications, described in Table 1. These Ayurvedic medications were taken with water, after meal. Lodhrasava/Kanakasav was taken with an equal amount of water. Timelines of Uttarbasti of patients, with the last mensturation, are given in table 2.

Table 2: Timelines of Uttarbasti of patients, with last menstruation.

	Last mensturation before 1st Uttarbasti	**1st cycle of Uttarbasti**	**Last mensturation before 2nd Uttarbasti**	**2nd cycle of Uttarbasti**	**Last mensturation before 3rd Uttarbasti**	**3rd cycle of Uttarbasti**
Case 1	07.08.2021	13.08.2021	04.09.2021	08.09.2021	02.10.2021	05.10.2021
Case 2	29.09.2021	05.10.2021	04.11.2021	12.11.2021	03.12.2021	08.12.2021
Case 3	09.10.2021	17.10.2021	16.11.2021	22.11.2021	20.12.2021	25.12.2021
Case 4	05.11.2021	15.11.2021	03.12.2021	10.12.2021	09.01.2022	12.01.2022
Case 5	05.04.2022	12.04.2022	03.05.2022	10.05.2022	03.06.2022	06.06.2022
Case 6	12.06.2022	20.06.2022	09.07.2022	15.07.2022	10.08.2022	14.08.2022
Case 7	29.03.2023	09.04.2023	29.04.2023	09.05.2023	16.06.2023	22.06.2023

Case 8	10.04.2023	17.04.2023	03.05.2023	09.05.2023	08.06.2023	12.06.2023

Results

There was a remarkable improvement in all the gynaecological issues associated with uterine fibroids. Investigations revealed a decrease in uterine fibroid size, after the treatment. In 3 patients there was about 40%-80% reduction in fibroid size. In 3 patient's fibroids were completely cured while in 2 patients, 16-27 % of fibroid size got decreased. There was a significant decrease in the size of uterine fibroids which was observed during the first follow-up USG done within a week or 8 weeks after treatment. While not all the patients visited for a second follow-up, four patients had a complete recovery from uterine fibroids. In case 1, one fibroid of the patient was completely resolved and in case 06, the fibroid was completely resolved as recorded in the first USG follow-up. Case 2, 4 and 5 patients underwent USG after three to seven months (second follow-up) after the treatment and reported the absence of fibroid (Table 3, Figure 1). A regularization of the menstrual cycle, a decrease in the heavy bleeding and the duration of bleeding were significantly improved. a significant increase in Hemoglobin levels was also observed in patients, after the treatment (Table 4, Figure 2-5). Patients with Hemoglobin levels higher than 9, were not asked to repeat the Hemoglobin test.

Table 3: Comparison of USG of patients, before treatment and after treatment

* Patients did not visit the hospital for USG.

	USG scan before treatment		**USG scan after treatment**			
			1st Follow up		2nd Follow up	
Sr. No	Pretreatment Date of USG	Size of uterine fibroid	Date of 1st USG	Size of uterine fibroid	Date of USG	Size of uterine fibroid
Case 1	24.07.2021	21.6 mm×21.0 mm and 21.6 mm×10.0 mm	11.10.2021	18.7mm. ×14.1mm and **0**	*	*
Case 2	01.09.2021	19.8 mm×15.0 mm	15.01.2022	10.8mm×8.8mm	17.05.2022	**0**
Case 3	28.09.2021	33mm×32.0mm	12.02.2022	19.3mm×12.6mm	*	*
Case 4	14.10.2021	16.9mm×9.6mm	28.01.2022	13.3mm×8.9mm	01.05.2022	**0**
Case 5	16.04.2022	18.4mm×17.2mm	05.08.2022	11mm×12mm	11.03.2023	**0**
Case 6	30.05.2022	9.3mm×8.3mm	22.08.2022	**0**	*	*
Case 7	13.03.2023	7.6mm×6.5mm	01.07.2023	6.9mm×6.0mm	*	*
Case 8	17.04.2023	21.7mm×23.5mm	20.05.2023	14mm×12mm	*	*

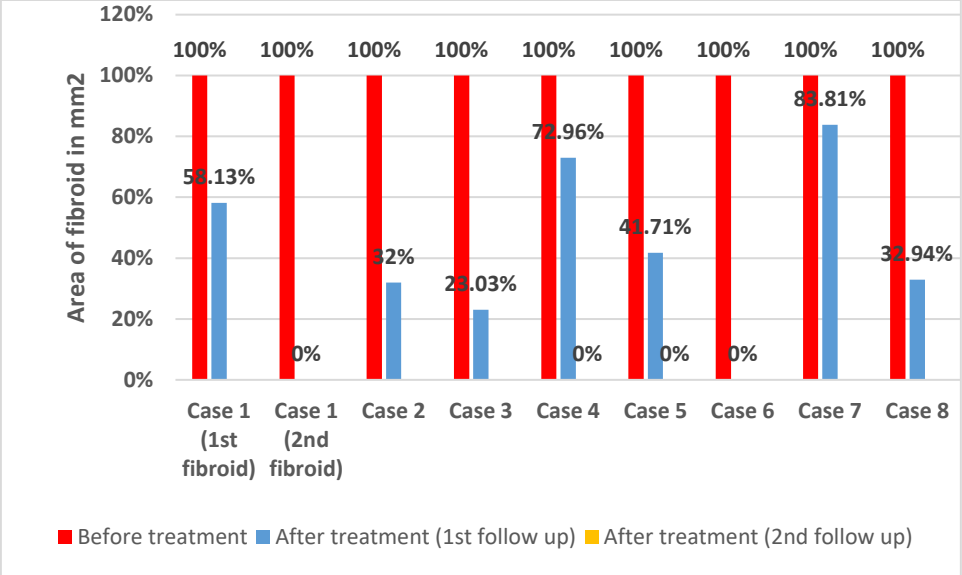

Figure 1: Comparison of area of fibroid before treatment and follow up after treatment.

Table 4: Comparison of symptoms of patients, before treatment and after treatment

* Patients did not visit the hospital for measurement

	Symptoms							
	Interval between 2 menstrual cycle before treatment (in days)	Interval between 2 menstrual cycle after treatment (in days)	Duration of menstrual bleeding before treatment (in days)	Duration of menstrual after treatment (in days)	Pads used before treatment (pads/day)	Pads used after treatment (pads/day)	Hemoglobin before treatment (gm/dl)	Hemoglobin after treatment (gm/dl)
Case 1	27	28	4-5	1-3	4-5	1-2	8.4	9.7
Case 2	25	30	6-7	2-3	10-12	2-3	6.4	8.5
Case 3	30	30	6	2-3	3-4	1-2	11.3	*
Case 4	20	28	6-7	2-3	6-7	2-3	7.9	9.2
Case 5	30	29	5-6	2-3	5-6	1-2	9.4	*
Case 6	23	28	6	2-3	3-4	1-2	10.1	*
Case 7	30	30	10	2-3	2-3	1-2	11.6	*
Case 8	30	30	4	4	4-5	2-3	9.1	*

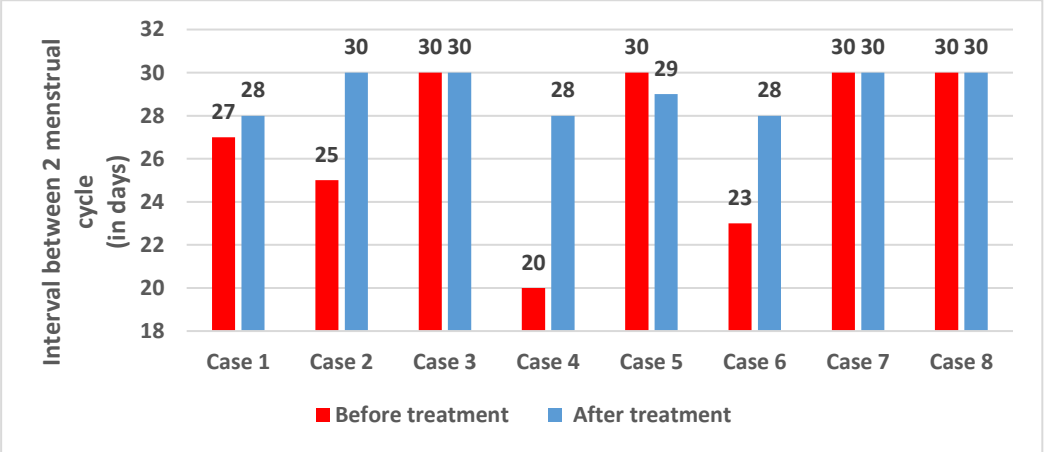

Figure 2: Comparison of interval between 2 menstrual cycle (in days) before treatment and follow up after treatment.

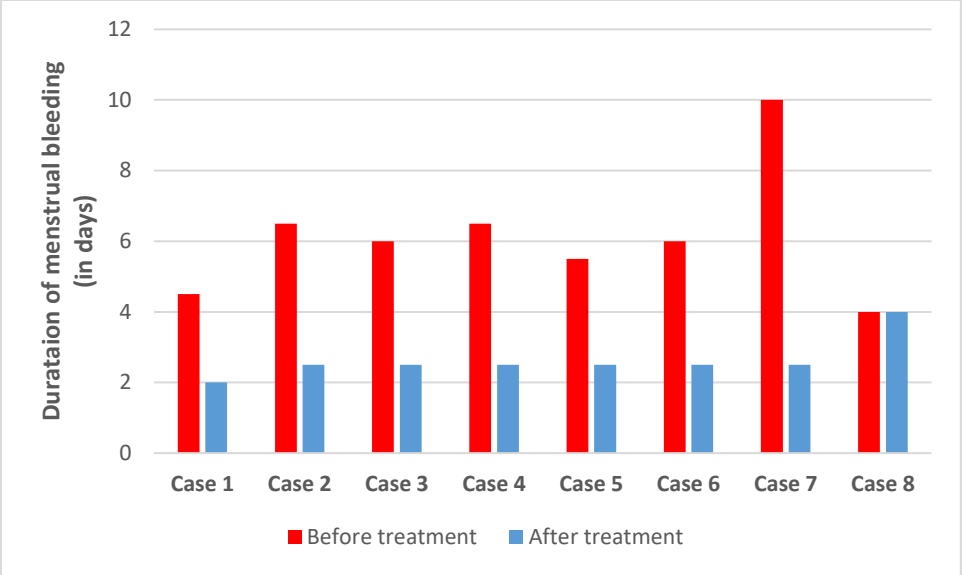

Figure 3: Comparison of duration of menstrual bleeding (in days) before treatment and follow up after treatment.

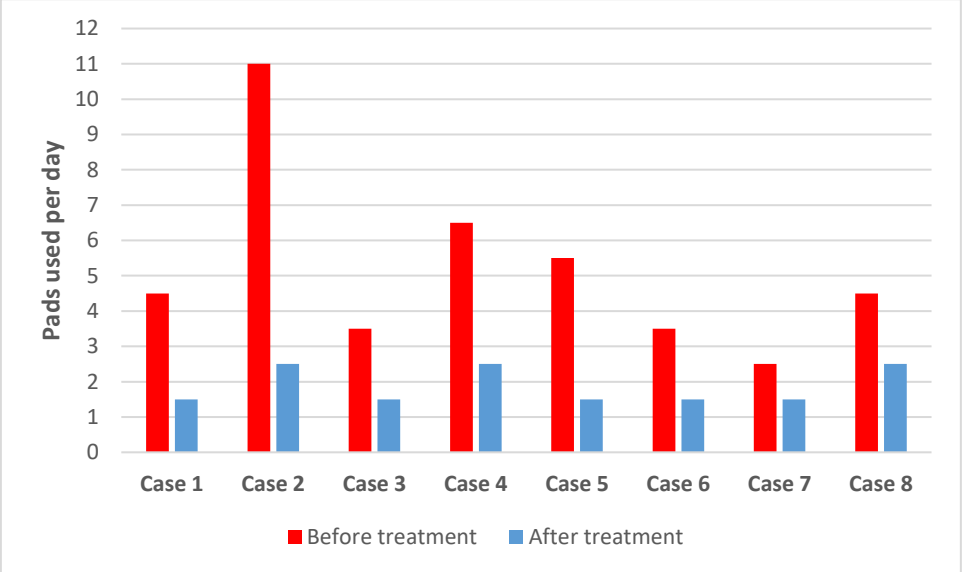

Figure 4: Comparison of sanitary pads used per day before treatment and follow up after treatment.

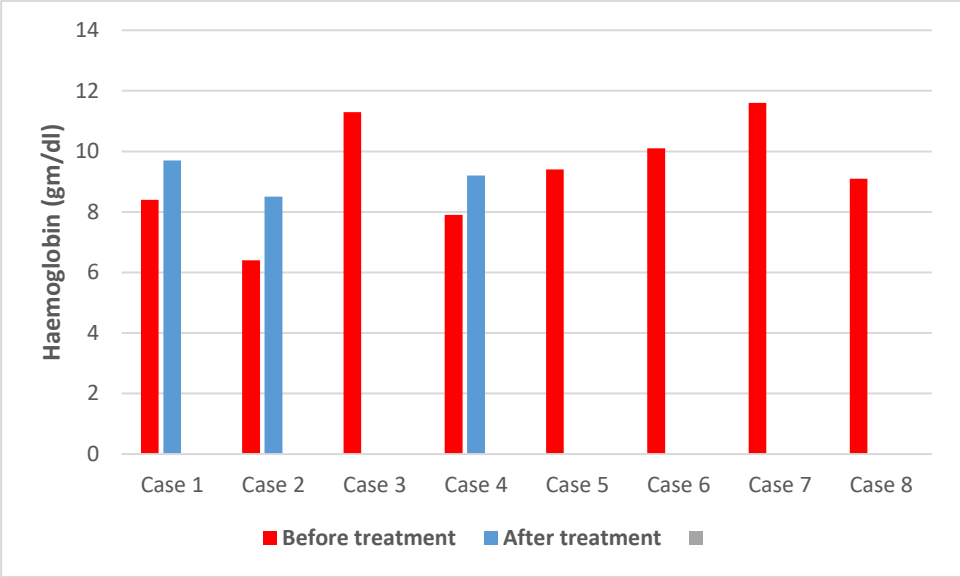

Figure 5: Comparison of Haemoglobin (gm/dl) before treatment and follow up after treatment.

DISCUSSION

In Modern Ayurveda, uterine fibroids are considered as Garbhashya-gat arbuda, which is a yapya disease. According to Ayurveda, Arbuda can be treated with Ayurvedic medications, kshar-karm, Agni-karm and surgery [20]. In Ayurveda, Kapha-arbudahar lepa is described in Sushruta Samhita for the treatment of arbuda [21]. Since lepa cannot be applied locally in the uterine cavity, oil was prepared with the medications listed in the lepa and administered as uttarbasti (intra-uterine installation) to have a local effect on the uterine fibroid. The fibroids of most of the patients started decreasing after the uttarbasti treatment as confirmed by USG scan within week to eight weeks after treatment. In case 1 there was a partial cure where 1 out of two fibroids was completely resolved while in case 6 the fibroid was completely resolved. A subsequent follow up after 3-7 months after the treatment did not show the presence of uterine fibroids in case 2,3 and 4. This later time point USG also confirmed that there was no recurrence of uterine fibroids in the patients who underwent treatment.

The medicines probably work by reducing estrogen and progesterone receptors on the uterine fibroid, which reduces the size of fibroid. However, exact mechanism of their action remains to be explored. Other medication (Pushyanug Churna, Bol Parpati, Lodhrasava/Kanakasav) included in the study is prescribed for asrigdar (Abnormal uterine bleeding) having rakta-stambhak (blood coagulant) properties. Therefore, through these Ayurvedic treatments, the size of uterine fibroids was decreased and menstrual bleeding was controlled and consequently the levels of Haemoglobin were increased. After the treatment, the amount of bleeding as well as the duration of the heavy menstrual bleeding was decreased also the number of sanitary pads required per day. The overall quality of life of the patients involved in the study was improved after the treatment.

CONCLUSION

On the basis of results of this case series, we can conclude that Ayurvedic treatment is effective in shrinking uterine fibroid size. Additionally, the Uttar Basti therapy was useful in managing the fibroid associated with uterine fibroids such as heavy menstrual bleeding irregular menses, low haemoglobin, abdominal pain and discomfort. To evaluate the effectiveness and

unfavourable consequences of management and the mechanism of drug action, further extensive research is required.

Author Contribution

SS: conduction of clinical trial, data analysis and manuscript writing, **NG:** design, planning and conduction of clinical trial,**K:** data analysis and manuscript writing.

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Conflict of interest

All the authors declare no conflicts of interest.

Data availability statement

The data that support the findings of this study are already included in the manuscript.

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