# A Comparative Clinical Study on The Efficacy of *Vamana Karma* and *Uttara Basti* Along with *Kanchanara Guggulu* and *Khadira Sara Kashaya* in The Management of *Garbhashaya Gata Arbuda* [Uterine Fibroid]-Clinical Study

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***Abstract*—Background:Uterine fibroid (*Garbhashaya Gata Arbuda*) is one of the most common benign gynecological disorders affecting reproductive and perimenopausal women. Conventional management primarily includes hormonal therapy and surgical interventions, which may be associated with adverse effects, recurrence, and compromise of fertility. *Ayurveda* offers a holistic and non-invasive approach through *Shodhana* and *Shamana* therapies. *Vamana Karma, Uttara Basti,* and formulations such as *Kanchanara Guggulu* and *Khadira Sara Kashaya* are indicated for *Kapha-Meda* dominant conditions like *Arbuda.***

**Aim:To evaluate and compare the efficacy of *Vamana Karma* and *Uttara Basti* along with *Kanchanara Guggulu* and *Khadira Sara Kashaya* in the management of *Garbhashaya Gata Arbuda* (uterine fibroid).**

**Methods:A randomized, open-label, comparative clinical study was conducted on 40 patients diagnosed with uterine fibroid. Group A received *Vamana Karma* followed by oral administration of *Kanchanara Guggulu* and *Khadira Sara Kashaya* for 60 days. Group B received *Uttara Basti* with *Kshara Taila* followed by the same oral medications. Assessment was done using subjective parameters and objective measures such as ultrasonography (USG), PBLAC score, and laboratory investigations. Statistical analysis was carried out using Wilcoxon and Mann–Whitney U tests.**

**Results:Both groups showed statistically significant improvement in menstrual abnormalities, pain, pressure symptoms, PBLAC score, and hemoglobin levels. Group A demonstrated better improvement in menstrual regularity, duration of bleeding, and dysmenorrhea, while Group B showed relatively better relief in pressure symptoms. Reduction in fibroid size was mild and statistically non-significant in both groups. Inter-group comparison revealed no significant difference, indicating comparable therapeutic efficacy.**

**Conclusion:*Vamana Karma* and *Uttara Basti,* when combined with *Kanchanara Guggulu* and *Khadira Sara Kashaya,* are effective, safe, and fertility-preserving *Ayurvedic* modalities for the management of uterine fibroids. Though fibroid size reduction was minimal, significant symptomatic relief was achieved in both groups.**

***Index Terms*—*Garbhashaya Gata Arbuda*, Uterine Fibroid, *Vamana Karma, Uttara Basti, Kanchanara Guggulu, Khadira Sara Kashaya, Ayurveda*, Clinical Trial.**

## I. INTRODUCTION

Uterine fibroid, also known as uterine leiomyoma, is a benign smooth muscle tumor of the uterus and is one of the most common gynecological disorders among women of reproductive and perimenopausal age. It is estimated that nearly 20–40% of women above the age of 30 years suffer from fibroids.[1],[2]Common symptoms include menorrhagia, dysmenorrhea, pelvic pain, pressure symptoms on bladder and bowel, infertility, and anemia.[3],[4]

Modern management involves hormonal therapy, myomectomy, and hysterectomy. [5],[6]These approaches, although effective, are associated with adverse effects, recurrence, high cost, and loss of reproductive capability.[7] Therefore, a safe, non-invasive, and fertility-preserving treatment is the need of the hour.

*Ayurveda* explains uterine fibroid under the concepts of *Arbuda, Granthi,* and *Mamsaja Vikara*. The pathogenesis is mainly due to vitiation of *Vata* and *Kapha doshas* along with *Meda* and *Mamsa dhatus*,[8],[9],[10],[11]leading to abnormal growth in *Garbhashaya. Shodhana* therapies like *Vamana* and *Uttara Basti* are indicated for *Kapha* and *Apana Vata* disorders, while *Shamana* drugs such as *Kanchanara Guggulu* and *Khadira Sara Kashaya* possess *Lekhana, Shothahara,* and *Granthi-hara* properties.[12]

## II. AIM AND OBJECTIVES:

Aim:To evaluate and compare the role of *Vamana Karma* and *Uttara Basti* along with *Kanchanara Guggulu* and *Khadira Sara Kashaya* in the management of *Garbhashaya Gata Arbuda* (uterine fibroid).

Primary Objective:

To assess the efficacy of both therapies in improving:

- Menorrhagia
- Irregular menstrual cycles
- Dysmenorrhea
- Pain and pressure symptoms

Secondary Objectives:

- To evaluate changes in size, volume, and consistency of uterine fibroids (USG-based).
- To assess improvement in hemoglobin levels and PBLAC score.

## III. REVIEW OF LITERATURE:

*Ayurvedic* classics describe *Arbuda* as a deep-seated, slowly growing, painless, firm swelling caused by vitiated *doshas*, especially *Kapha* and *Vata. Granthi* is described as a nodular swelling involving *Mamsa* and *Meda dhatu.*

*Vamana Karma* is considered the prime therapy for *Kapha* and *Meda* disorders, eliminating morbid *doshas* from the upper channels and correcting metabolism. [13]*Uttara Basti* is specifically indicated for diseases of the uterus and urinary system and helps in regulating *Apana Vata* and cleansing uterine channels.[14]

*Kanchanara Guggulu* is traditionally indicated in *Granthi, Arbuda*, and *Galaganda*. It possesses *Lekhana, Kapha-Meda hara*, and *Shothahara* properties.[15] *Khadira Sara Kashaya* is known for its anti-inflammatory and detoxifying actions, supporting regression of abnormal tissue growth.[16]

Modern studies suggest fibroids are influenced by estrogen, progesterone, and growth factors, which correlate with *Ayurvedic* concepts of *Kapha-Meda* dominance and abnormal tissue proliferation.

## IV. MATERIALS AND METHODS:

Study Design:

Randomized, open-label, comparative clinical study.

Sample Size:

40 patients diagnosed with uterine fibroid.

Grouping:

Group A (20 patients): *Vamana Karma* followed by *Kanchanara Guggulu* and *Khadira Sara Kashaya* for 60 days.

Group B (20 patients): *Uttara Basti* with *Kshara Taila* followed by the same oral medication for 60 days.

Inclusion Criteria:

- Women aged 25–50 years
- Diagnosed uterine fibroid confirmed by USG
- Symptomatic fibroids (menorrhagia, pain, pressure symptoms)

Exclusion Criteria:

- Pregnancy
- Malignancy
- Severe systemic illness
- Fibroids requiring emergency surgery

Assessment Criteria:

- Subjective parameters:
- Menstrual regularity

- Duration and amount of bleeding
- Dysmenorrhea
- Pelvic pain
- Pressure symptoms

Objective parameters:

- Fibroid size and volume (USG)[17]
- PBLAC score[18]
- Hemoglobin
- Routine laboratory investigations

Statistical Analysis:
Wilcoxon signed-rank test and Mann–Whitney U test were used.[19]

## V. CLINICAL STUDY

Hence The clinical study for this research work consists of 3 parts-

- Plan of study.
- Observations.
- Effect of therapy.

Plan of study:
This comprises the Aims and Objectives, Materials and Methods, Design of study, Criteria for selection of patients-inclusion criteria, exclusion criteria, withdrawal criteria, Diagnostic criteria of disease-clinical methods, clinical examination of patient, investigations, Criteria for assessment - subjective & objective parameters along with scoring pattern & Overall effect of the therapy. Drug Mode of administration has been mentioned. Total 43 patients were registered for the clinical trial, 40 in each group) patients were completed the course of the treatment and 03 patients were discontinued. The result was assessed on the basis of improvement in subjective parameters and objective parameter.

Observations: Discussion on demographic data
Age:
Majority i.e., 55.00% patients were found under the age group of 31 to 40 years, followed by 32.50% under 41 to 50 years and 12.50% under 20 to 30 years, which shows the increasing incidence of fibroid in the late reproductive years and in perimenopausal age. If the likelihood of fibroid development and growth actually accelerates during the late reproductive years, hormonal factors associated with perimenopause may be important modulators; alternatively, the apparent increase in the late reproductive years may simply represent the cumulative culmination of 20-30 years of stimulation by oestrogen and progesterone. They most commonly cause symptoms between the ages of 35-45 years but probably exist in microscopic form before the age of 30 years. In perimenopausal age group most of the patients suffer from irregular menses, menorrhagia, scanty menses etc. So, they visit to hospital and fibroids are detected during gynecological check-up and by USG etc.

Religion:
On observation of religion, it was found that majority i.e., 85.00% of women were belongs to Hindu religion and few i.e., 25.00% were Muslim as the surroundings around hospital area were Hindu dominant area.

Education:
Majority i.e. (40.00%) patients were post graduate educated, (25.00%) were primary school, 25.00% were graduate illiterate, (05.00%) secondary, (02.50%) patients were higher secondary studied, (02.50%) were illiterate. it suggest that highly literate females are suffering now a days with uterine fibroid,may be due to stress level and mithya ahara vihara .

Occupation:
Majority i.e., 80.00% were housewives, (15.00%) patients of desk work, (05.00%) patient physical employee. Sedentary life style is generally found associated with housewives they not much aware about their health and hesitate to discuss their health problem with others. All these leads to insufficient care regarding their own health, hence they were more sufferers than other. Etiological factors leading to obesity, over eating, lack of exercises, etc. are found among this group more than others.

Socio-economic status:
Majority i.e., 32.50 % of the women recruited for the trial was belonged to lower middle class and same percentage of upper lower class. The Institute where the study was carried out is a government organization and provides free health services.

Naturally majority of the low-income group people approach this hospital. And upper lower class are being approached to institute too.

Habitat:

In the present study majority of the women i.e., 70.00% were from urban locality, few women i.e., only 30.00% were from rural side. It may attribute to the location of the hospital in city.In urban areas, more consumption of fast food and stressful life style might be the cause for the disease.

Marital status:

All patients 100.00% were married. The prevelance is highest between 35-45 years. the increasing incidence of fibroid in the late reproductive years and in perimenopausal age. Unmarried patients generally do not consult Gynecologist only for irregular and heavy menstruation but married patients become more worried for their irregular menstrual pattern in compare to unmarried patients and fibroids are detected during gynecological check-up and by USG etc.

Chief complaints

Pain or discomfort in abdomen: 82.50% of patients were complaining of pain in lower abdomen.

It may be due to obstruction in the pathway of *vata* by *kapha* which hindered *vatanulomana* results in inappropriate contraction of *garbhashaya* leads to abdominal discomfort or pain. Presence of *arbuda* in *garbhashaya* also leads to congestion and inappropriate contraction in uterus causes discomfort in abdomen. Pain may be due to some complications of the uterine fibroid or due to associated pelvic pathology.

Menorrhagia:

Menorrhagia was present in 60% patients. It is the most common symptom (30%) of uterine fibroid. The reason behind it is due to increase in surface area of endometrial cavity and increased vascularity of the uterus associated with endometrial hyperplasia. Hyperestrogenism compression of veins by the tumors with consequent dilatation and engorgement of venous plexuses in the endometrium and myometrium, interference with uterine contractions which are alleged to control the blood flow through the uterine wall. One study shows that patients suffering from mild to moderate depression had menorrhagia. (Greenbergm. J. Psychosomres.1983). After using *kapha prakopaka dravyas*, fatty articles are more increase in *Rasa Dhatu* which are precursor of the steroidal hormones leads to more production of oestrogen which causes increase vascularity or congestion and endometrial hyperplasia represents this clinical feature as well as vitiated *vata* does not show its normal function like *sankocha* so it may contribute in this symptom.

Dysmenorrhoea

It was present in 10.00% patients. *Vimargagamana* type of vitiation of *vata* and presence of *arbuda* may be the cause of inappropriate or arrhythmic contraction (low of polarity of uterus) leading to pain. All the muscular incordinations can be taken as *vimargagamana* type of *vata* vitiation. Any type of obstruction in its normal pathway may lead to pain by aggravating it. Dysmenorrhoea of an unusual character, severe but one – sided, can be caused by a single but quite small leiomyoma which happens to be sited at the uterotubal junction from which uterine contractions waves arise.

Intermenstrual bleeding:

It was present in 05.00% patients. Fibroids rarely bleed between periods, except in a few cases of very large fibroids. Irregular menses Irregular menses in 25% patients, it may be due to the age factor because most of the patients were from perimenopausal period, *vata* is unstable during this period and tends to increase with use of unwholesome diet and behaviour. Increased *vata* causes impaired gonadal hormone secretion which in turn causes irregular menses.

Infertility:

Leiomyomas are an infrequent primary cause of infertility and have been reported as a sole cause in less than 3% of infertile patients. One review of myomectomies performed for all indications noted a prior history of infertility in 27% of women. This research documentation supports the present study data in which 17.50% patients were complaining of infertility. Probable reasons are large intramural tumors located in the cornual regions may obstruct the tubes, continuous bleeding in patients with submucous leiomyomas may impede implantation, there are increased incidences of abortion and

premature labour in patients with intramural or submucous tumors. Infertility also may be due to excess oestrogen which lowers the level of FSH hormone by negative feedback results in anovulation.

Associated complaints:

Constipation: Constipation was present in 35.00% patients it may be due to *Agnimandya* caused by *Nidana Sevana* leads to *Kapha Prakopa Srotorodha* then deranged *anulomana* and finally make a ground for constipation. A posterior leiomyoma may produce rectal pressure causing a sense of rectal fullness, pain during defecation, tenesmus constipation.

Weakness:

Weakness was present in 70.00% patients. As per *Ashtanga Hridaya ama* produced during pathogenesis of disease causes *srotorodha* which hinders proper nourishment of *rasa, raktadi dhatus* for their function which precipitates *balabhransha* (weakness and decreased immunity), *gaurava* and *alasya.* According to modern science it may be due to anaemia because oxygen supply to the cells decreases as a result of less haemoglobin the main oxygen carrying substances which in turn lead to anaerobic reactions in cells and produce excessive quantity of lactic acid causes tiredness as well as weakness.

Backache:

Backache in 35.00% patients. Fibroids press against the muscles and nerves of the lower back and cause back pain and also due to aggravated *vata dosha*

Age of Menarche.

Onset of menarche was found in 07.50% patients in the age of 11 years, 22.50% patients in the age of 12 years, 30.00% patients in the age of 13 years, 22.50% patients in the age of 14 years and 17.50% patients in the age of 15 years. The early onset of menstrual cycles may increase the number of cell divisions that the myometrium undergoes during the reproductive years, resulting in an increased chance of mutation in genes controlling myometrial proliferation. Generally, the age of menarche is usually 10-16 years the average being 13 years in India. Age at menarche <11 years is associated with an increased risk of fibroids as compared with the mean age at menarche. The present study shows that timely onset of menarche was found in all the patients.

Family history: Maximum 97.50% patients had no family history of uterine fibroid. Family history is one risk factor for uterine fibroids. In one study it was found that fibroids were found to be 4.2 times more common in first-degree relatives of women with fibroids than those without. Women from families in which two first degree relatives have fibroids have a two-fold increased risk of developing uterine fibroids.

Menstrual history:

Type of menstruation: Majority of patients 65% were having regular menstruation. Heavy clots in menses: Absent in maximum 65.00% patients. Submucosal fibroid can cause extremely heavy menstruation with large blood clots. Maximum 77.00% patients had complaint of pain in lower abdomen during menstruation it may be due to pelvic congestion due to Fibroid leading to painful menses or may be due to associated endometriosis, all the muscular incoordination's can be taken as *vimargagamana* type of *vata* vitiation. *Vatadrute nasti ruja*. Any type of obstruction in its normal pathway may lead to pain by aggravating it. Maximum 55% patients had >25 pads amount of bleeding, (12.00%) had ≤15 pads amount of bleeding, (08.00%) had 21-25 pads and (25%) had 16-20 pads amount of bleeding. It is due to big size of fibroid which causes hyperplasia of endometrium leading to excessive amount of bleeding. Maximum 48% patients had interval of 25-28 days between two cycles, 23% patients had interval of 20-24 days, 07.00% patients had interval of 15-19 days between two cycles and 22% patients had interval of <15 days between two cycles.

Duration of bleeding:

Maximum 37% patients had up to 5 days of duration of bleeding, 20% patients had 6-7 days of duration of bleeding, 13% patients had duration of bleeding 8-9 days and 30% patients had more than 9 days of duration of bleeding due to pelvic congestion & increased surface area of endometrium due to fibroid.

Obstetric history:

Among 40 registered patient all are married and Maximum 45 % patients were Multipara ,17.50% patients were Nulligravida, 30% patients were Nullipara, 25% patients were Primipara and previous

history of abortion was found in 52.50% patients Increasing incidence of uterine fibroid in the late reproductive years and in perimenopausal. These are more common in nulliparous or in those having one child infertility.

Contraception history:
Among 40 registered married patients 10.00% patients were not using any type of contraception ,65% patient husband was using condom and 25% patients had history of permanent contraception i.e., T.L.

Diet
Maximum i.e.,72% patients were vegetarian and 28% patients were mixed diet taken as the surrounding area of hospital Hindu dominant area. It will not be rational to conclude that vegetarians are susceptible to this disease as already mentioned in conceptual study that excessive red meat consumption may be because of it. Excessive fatty diet may be considered as a risk factor for uterine fibroid.

Sleep pattern
Maximum i.e., 72% patients were of normal sleep, 25% patients were of excessive sleep and 3% were of Disturbed sleep. No definite explanation can be made on the basis of above findings.

*Divaswapna*
Maximum 82% patients were taken *Divaswapna* after taking food. It is one of reason of *mamsavaha shroto dushti*, having *mamsaj pradoshaj vikara* i.e.*Arbuda* Bowel habit Maximum 65% patients were of regular bowel habit, 35% patients were of constipated habit. Constipation comes in pressure symptoms but in this research less patient have this symptom.

Micturition:
Maximum 85% patients were having normal micturition followed by 15% patients who had abnormal frequency of micturition. Among 15 %this may be due to pressure effect of fibroid.

Addiction:
Maximum i.e., 90% patients had addiction of tea, 10% patients had no addiction and not a single patient had addiction of alcohol & Tobacco.

*Koshtha*
Maximum i.e., 47% patients had madhyama koshtha, 28% patients had krura koshta and 25% had mridu koshta.

Body built:
Maximum 52% patients had normal BMI 18.5-24.9, while 23.00% patients were having BMI >30, 18% patients had BMI between 25-30 and 7.00% had BMI <18.5 Obese women are more prone to develop uterine fibroids in compare to thin. This apparent association between obesity and an increased risk of fibroids may be related to hormonal factors associated with obesity, but other pathologic pathways might also be involved.

*Rasa sevana*:
Maximum 35% patients had habit of *madhura rasa sevana* followed by 20.00% of patients had habit of *lavana rasa*, 15% patients had habit of *katu rasa*, 13% of patients of *kashaya rasa*,12% of patients *amla rasa*,5%patients of *tikta rasa*. Excessive intake of *madhura rasa* leads to *kapha prakopa* and also the cause of obesity and *srotorodha* vitiates *vata.* Further excessive *katu rasa sevana* also causes *vata prakopa* hence it acts as *dosha prakopaka*, *artava dushtikara nidana* and may lead to neuro-hormonal imbalance as well as increased cell division.

*Dasha vidha pariksha:*
Maximum 48% were of *vatakapha prakrti*, 28% patients were of *vatapitta prakrti*, and 20% patients were of *kaphapitta prakrti* each, which is susceptible for disease. As in this disease basically *vata* and *kapha dosha* are predominant. It is evident that *vata* and *kapha* plays predominant role in etiopathogenesis of disease *Garbhashaya Arbuda*, because *prakriti* always supports vitiation of same *dosha* eg. In *vata-kapha* persons vitiation of *vata* and *kapha* will occur easily which are the chief culprit in the genesis of *Garbhashaya Arbuda.* If in *Garbhashaya Arbuda* patient the dominancy of particular *dosha* matches with *dosha prakriti* and other factors like *dushya, kala, bala* etc. then the curability and control of *Garbhashaya Arbuda* becomes very difficult Maximum 85% patients were of *prakrti samasamvaya,* 15.00% patients were of *vkriti vishamasamvaya*. Maximum 50% patients were of *mamsa sara* 15% patients were of *meda sara*, 35%

patients were of *asthi sara*. As *mamsa* is main site of origin of fibroid and all fibroid are due to vitiation of *mamsa.* Maximum 93.33% patients were of *madhyam samhanana*, 06.67% patients were of *avara samhanana*. Maximum 80.00% patients were of *madhyam pramana*, 13.34% patients were of *hina pramana*, 06.67% patients were of *uttam pramana.* Maximum 90% patients were of *madhyama satmya*, 10% patients were of *avara satmya*. Maximum patient 60.00% were of *madhayama satva*, 35% patient were of *avara satva*,5%*pravara satva*. According to *samhanana*, *pramana*, and *satmya* maximum patients were found from *madhyama* category. It is difficult to find some relation of *madhyama samhanana*, *pramana* and *satmya* with *Garbhashaya Arbuda* without some pinpointed & specific researches. However, it can be assumed that most of the patients were from reproductive age group who are generally *madhyama* in *pramana, satva,* and *samhanana* etc. Maximum, 65% patients were of *avara abhyavarana shakti*, 35% patients were of *madhyama abhyavarana shakti*. It indicates towards *mandagni* in the patients of *Garbhashaya Arbuda* which leads to *amotpatti* & may deposit on the wall of vessels (atherosclerosis) which again worsen the condition. Maximum 70% patients were of *avara jarana shakti*, 30% patients were of *madhyama jarana shakti*. Maximum 55% patients were of *avara vyayama shakti*, 45% patients were of *madhyam vyayama shakti.*

Per vaginal and per speculum examination:
Among 40 patients 100% patient uterus were AV/AF. Maximum 55% patients had normal uterus & 45% patients had bulky uterus.Explanation is that when fibroid grows in uterus or cervix, it makes them bulky and hard. 100% patients had normal cervix. Maximum patients 95% had no cervical erosion. 100% patients had non-tender cervical motion.

Size of Uterine Fibroid
Maximum patients i.e 30% had fibroid of size 1-2cm, 20.00% patients had fibroid of size 2-3cm, 18.00% patients had fibroid size 3-4cm.and 22% patients had fibroid size 4-5cm,10% upto 1 cm. Very small fibroids are very dynamic in their growth, with rapid growth but a high chance of loss. Larger fibroids grow more slowly.

The effect of therapy:
A. Subjective parameters
Effect on interval between two menstrual cycles:
GROUP A The effect of therapy showed very significant result with a $p<0.05$ and percentage of relief was observed 80.95%. Before treatment mean score was 1.050 and same is reduced to 0.2000 after treatment.

GROUP B The effect of therapy showed significant result with a $p<0.05$ and percentage of relief was observed 66.66%. Before treatment mean score was 1.050 and same is reduced to 0.3500 after treatment.

Effect on duration of menstrual bleeding:
GROUP A The effect of therapy showed significant result with a $p<0.05$ and percentage of relief was observed 92.85%. Before treatment mean score was 0.7000 and same is reduced to 0.05000 after treatment.

GROUP B The effect of therapy showed significant result with a $p<0.05$ and percentage of relief was observed 86.66%. Before treatment mean score was 0.7500 and same is reduced to 0.1000 after treatment.

Effect on quantity of menstrual bleeding:
GROUP A The effect of therapy showed extremely significant result with a $p<0.05$ and percentage of relief was observed 37.93%. Before treatment mean score was 1.450 and same is reduced to 0.9000 after treatment.

GROUP B The effect of therapy showed non-significant result with a $p<0.05$ and percentage of relief was observed 25%. Before treatment mean score was 1.000 and same is reduced to 0.7500 after treatment.

Effect on pain in lower abdomen during menstruation:
GROUP A The effect of therapy showed extremely significant result with a $p<0.05$ and percentage of relief was observed 87.78%. Before treatment mean score was 1.850 and same is reduced to 0.3000 after treatment.

GROUP B The effect of therapy showed very significant result with a $p<0.05$ and percentage of

relief was observed 72.97%. Before treatment mean score was 1.850 and same is reduced to 0.5000 after treatment.

Effect on pressure symptoms:
GROUP A The effect of therapy showed very significant result with a p<0.05 and percentage of relief was observed 90.90%. Before treatment mean score was 0.5500 and same is reduced to 0.05000 after treatment.

GROUP B The effect of therapy showed extremely significant result with a p<0.05 and percentage of relief was observed 100%. Before treatment mean score was 0.8000 and same is reduced to 0.000 after treatment.

B. Objective Parameter
Size of fibroid: Effect on size of fibroid
GROUP A The effect of therapy showed non-significant result with a p<0.05 and percentage of relief was observed 6.38%. Before treatment mean score was 2.350 and same is reduced to 2.200 after treatment.
GROUP B The effect of therapy showed non-significant result with a p<0.05 and percentage of relief was observed 7.89%. Before treatment mean score was 1.900 and same is reduced to 1.750 after treatment.

## VI. RESULTS

**Table no.4.39: Effect of Treatment (Vamana Karma And Kanchnara Guggugulu With Khadira Sara Kashyaya) On Subjective Parameters n=20 (GROUP-A)**

| Parameters | Mean B.T. | Mean A.T. | Mean Diff. | Relief % | SD± | SE± | w | p | Result |
|---|---|---|---|---|---|---|---|---|---|
| 1. Interval Between Two Menstrual Cycles | 01.050 | 00.2000 | 00.8500 | 80.95% | 01.040 | 00.2325 | 55.00 | 00.002 | vs |
| 2. Duration Of Menstrual Bleeding | 00.7000 | 00.05000 | 00.6500 | 92.85% | 01.040 | 00.2325 | 28.00 | 00.016 | s |
| 3. Quantity Of Menstrual Bleeding | 01.450 | 00.9000 | 00.5500 | 37.93% | 00.5104 | 00.1141 | 66.00 | <0.001 | es |
| 4. Pain In Lower Abdomen During Menstruation | 01.850 | 00.3000 | 01.550 | 87.78% | 01.099 | 00.2458 | 120.00 | <0.001 | es |
| 5. Pressure Symptoms | 00.5500 | 00.05000 | 00.5000 | 90.90% | 00.5130 | 00.1147 | 55.00 | 0.002 | vs |

**Table No.4.40: Effect on objective parameters n=20(GROUP-A)**

| Parameters | Mean B.T. | Mean A.T. | Mean Diff. | Relief % | SD± | SE± | w | p | Result |
|---|---|---|---|---|---|---|---|---|---|
| Fibroid size | 02.350 | 02.200 | 0.1500 | 6.38% | 00.5871 | 00.1313 | 12.00 | 00.453 | NS |

**Table No. 4.41: Effect in Fibroid Volume, Group-A(N=20)**

| Parameters | Mean B.T. | Mean A.T. | Mean Diff. | SD± | SE± | w | p | Result |
|---|---|---|---|---|---|---|---|---|
| Fibroid Volume | 26.83 | 23.74 | 03.09 | 14.95 | 03.34 | 00.924 | 00.367 | NS |

**Table No. 4.45: EFFECT OF TREATMENT (UTTARA BASTI AND KANCHNARA GUGGUGULU WITH KHADIRA SARA KASHYAYA) ON SUBJECTIVE PARAMETERS n=20(GROUP-B)**

| Parameters | Mean B.T. | Mean A.T. | Mean Diff. | Relief % | SD± | SE± | w | p | Result |
|---|---|---|---|---|---|---|---|---|---|
| 1.INTERVAL BETWEEN TWO MENSTRUAL CYCLES | 1.050 | 0.3500 | 0.7000 | 66.66% | 1.218 | 0.2724 | 21.00 | 0.031 | s |
| 2.DURATION OF MENSTRUAL BLEEDING | 0.7500 | 0.1000 | 0.6500 | 86.66% | 0.9881 | 0.2209 | 28.00 | 0.016 | s |
| 3.QUANTITY OF MENSTRUAL BLEEDING | 1.000 | 0.7500 | 0.2500 | 25% | 0.6387 | 0.1428 | 25.00 | 0.180 | ns |
| 4.PAIN IN LOWER ABDOMEN DURING MENSTRUATION | 1.850 | 0.5000 | 1.350 | 72.97% | 1.268 | 0.2835 | 105.0 | 0.01 | vs |
| 5.PRESSURE SYMPTOMS | 0.8000 | 0.0500 | 0.750 | 93.75% | 17.60 | 4.54 | 120.0 | 0.00065 | Hs |

**Table No. 4.46: Effect on objective parameters n=20(GROUP-B)**

| Parameters | Mean B.T. | Mean A.T. | Mean Diff. | Relief % | SD± | SE± | w | p | Result |
|---|---|---|---|---|---|---|---|---|---|
| Fibroid size in mm | 1.900 | 1.750 | 0.1500 | 07.89% | 1.226 | 0.2741 | 6.000 | 0.719 | n s |

**Table No. 4.47: Effect in Fibroid Volume, Group-B(N=20)**

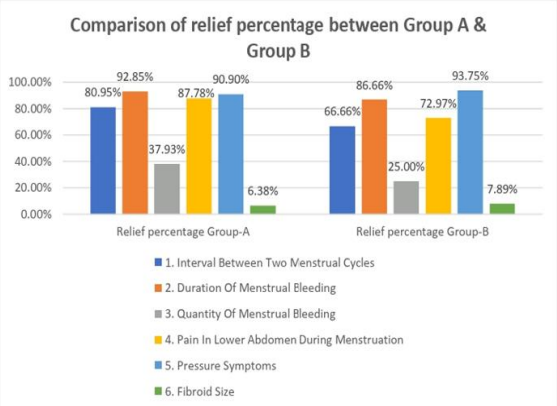
| Parameters | Mean B.T. | Mean A.T. | Mean Diff. | SD± | SE± | w | p | Result |
|---|---|---|---|---|---|---|---|---|
| Fibroid Volume | 20.50 | 16.50 | 04.00 | 12.95 | 02.89 | 01.38 | 0.183 | ns |

Although the average fibroid volume decreased from 20.50 to 16.50, the difference is small
and the variability among patients is high (SD = 12.95). There are the reduction is not statistically significant on paired Student's t-test

**INTER GROUPS COMPARISION**

**Table No. 4.51: Comparison of relief percentage between Group A & Group B**

| Parameters | Relief percentage Group-A | Relief percentage Group-B |
|---|---|---|
| 1. Interval Between Two Menstrual Cycles | 80.95% | 66.66% |
| 2. Duration Of Menstrual Bleeding | 92.85% | 86.66% |
| 3. Quantity Of Menstrual Bleeding | 37.93% | 25.00% |
| 4. Pain In Lower Abdomen During Menstruation | 87.78% | 72.97% |
| 5. Pressure Symptoms | 90.90% | 93.75% |
| 6. Fibroid Size | 06.38% | 07.89% |




***from parameters 1 to 4, relief percentage is higher in group-a than group-b

***from parameters 5 to 6, relief percentage is higher in group-b than group-a

**Table No. 4.52: Statistics in inter group comparison**

| Parameters | Mean B.T. | Mean A.T. | Mean Diff. | Relief % | SD± | SE± | w | p | Result |
|---|---|---|---|---|---|---|---|---|---|
| 1.Interval Between Two Menstrual Cycles | 21.95 | 19.05 | 1.040 | 1.218 | 0.2325 | 0.2724 | 171 | 0.363 | NS |
| 2.Duration Of Menstrual Bleeding | 20.48 | 20.53 | 1.040 | 0.9881 | 0.2325 | 0.2209 | 199.5 | >0.999 | NS |
| 3.Quantity Of Menstrual Bleeding | 21.50 | 19.50 | 0.5104 | 0.5104 | 0.1141 | 0.1141 | 180 | 0.752 | NS |
| 4.Pain In Lower Abdomen During Menstruation | 22.50 | 18.50 | 1.099 | 1.293 | 0.2458 | 0.2891 | 160 | 0.291 | NS |
| 5.Pressure Symptoms | 17.50 | 23.50 | 0.5130 | 0.4104 | 0.1147 | 0.09177 | 140 | 0.096 | NS |
| 6.Fibroid Size | 19.80 | 21.20 | 0.4894 | 1.040 | 0.1094 | 0.2325 | 186 | 0.686 | NS |

There is no statistically significant difference between group-a and group-b in terms of the effect of treatment on uterine fibroid. In other words, both treatments produced similar outcomes.

Both groups showed statistically significant improvement in:

- Menorrhagia
- Dysmenorrhea
- Pain and pressure symptoms
- PBLAC score
- Hemoglobin levels
- Group A showed better improvement in:
- Menstrual cycle regularity
- Duration of bleeding
- Dysmenorrhea

Group B showed slightly better improvement in:
Pressure symptoms
Reduction in fibroid size was mild and statistically non-significant in both groups. Inter-group comparison revealed no statistically significant difference, indicating comparable therapeutic efficacy.

## VII. DISCUSSION:

*Vamana Karma* acts by eliminating vitiated *Kapha* and *Meda doshas* systemically, improving metabolism and hormonal balance, thereby reducing menstrual abnormalities. *Uttara Basti* directly acts on the uterus by correcting *Apana Vata* and cleansing uterine channels.

*Kanchanara Guggulu* and *Khadira Sara Kashaya* contribute through *Lekhana*, *Shothahara*, and *Granthi-hara* actions, leading to symptomatic relief.
Minimal fibroid size reduction may be attributed to short treatment duration and small baseline fibroid size. Longer duration therapy may yield better structural changes.

## VIII. CONCLUSION:

Both *Vamana Karma* and *Uttara Basti* combined with *Kanchanara Guggulu* and *Khadira Sara Kashaya* are effective, safe, and fertility-preserving treatment options for uterine fibroids. Significant symptomatic relief was observed in both groups, though fibroid size reduction remained minimal. These therapies can serve as alternative or complementary approaches to conventional management.

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