Case Study

Ayurvedic intervention in the management of uterine fibroids: A Case series

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Abstract

Uterine enlargement is common in reproductive life of a female. Other than pregnancy, it is seen most frequently in the result of leiomyomas. Leiomyomas, are benign smooth muscle neoplasms that typically originate from the myometrium, due to fibrous consistency and are also called as fibroid. They may be identified in asymptomatic women during routine pelvic examination or may cause symptoms. Typical complaints include pain, pressure sensations, dysmenorrhea or abnormal uterine bleeding. Management of uterine fibroid through surgery is available to meet urgent need of the patient, but challenges remain to establish a satisfactory conservative medical treatment till date. Hence, it was critically reviewed in the context of Granthi Roga (disease) and treatment protocol befitting the Samprapti Vighatana of Granthi (encapsulated growth) was subjected in patients of uterine fibroids. Seven cases of uterine fibroid were managed by Ayurvedic intervention. Ultrasonography (USG) of the lower abdomen was the main investigative/diagnostic tool in this study. After 7 weeks, patients presented with USG report as absence of uterine fibroid. Ayurvedic formulations Kanchanara Guggulu, Shigru Guggulu, and Haridra Khand are found to be effective treatment modality in uterine fibroid.

Key words: Granthi, Haridra Khand, Kanchanara Guggulu, leiomyomas, uterine fibroid

Introduction

Uterine fibroid, a noncancerous growth of the uterus that often appear during childbearing age of female and also known as fibromyomas, leiomyomas or myomas; is one such gynecological disorder which is posing a major health problem.[1] Less than 0.1% of all uterine fibroids are malignant. Regardless of benign neoplastic character, uterine fibroids are responsible for significant morbidity in a large segment of the female population. The clinical effects are related to their local mass effect, resulting in pressure upon adjacent organs, excessive uterine bleeding, or problems related to pregnancy, including infertility and repetitive loss of pregnancy.[2] As a consequence of these local pressure effects and bleeding, uterine fibroids rank as a major reason for hysterectomy accounting for approximately one-third of all hysterectomies or about 2,00,000 hysterectomies/year.[3,4] Fibroids are of unicellular origin and possess a distinct autonomy from their surrounding myometrium because of their outer connective tissue layer which allows leiomyomas to be easily “shelled out” of the uterus during surgery.[5,6] Localized nodular swelling/growth has been referred under the name of Granthi that develops due to localization of morbid body humors in body tissue.[7] It protrudes like joint of bamboo/joint between two parts of a plant or kernel of the fruit of Amalaki (Emblica officinalis Gaertn.) and is relatively hard and tough, glandular or nodular swelling; knotty, hard and rough appearance. Pathogenesis of Granthi is propounded as when morbid Tridoshas, vitiate Rakta (blood), Mamsa (fleshy/muscles), and Meda (fat/adipose tissue) that are admixed with Kapha produce rounded protuberant, knotty or glandular and hard swelling called Granthi.[8] Etiopathogenesis, clinical features and treatment of Granthis, are identical to the Granthis of any other body part, however few clinical features present due to a specific location of the disease as a result of anatomical and physiological disturbance.[8,9] Granthi when present in yoni (female reproductive system)/ Garbhashaya (uterus) will lead to disturbed menstrual cycle-menorrhagia, metrorrhagia, dysmenorrhea, etc., along with infertility. On per vaginal examination, bulky uterus is felt. Such clinical entity is diagnosed today as Uterine fibroid where in Vata Dosha (humor) is the predominant pathological factor being the natural site of its location (Basti Pradesh) in the body. In Ayurvedic literature total, nine types of Granthi...
Materials and Methods

The patients presented with features suggestive of uterine fibroid were examined, a clinical diagnosis was made and then confirmed with the help of ultrasonographical (USG) examination. After confirmation, patients having uterine fibroid of $<40 \text{ mm} \times 40 \text{ mm} \times 40 \text{ mm}$ were considered for this case series. The demographic profile, associated gynecological symptoms such as pain lower abdomen, backache, excessive and irregular bleeding if present were noted. Laboratory investigations like blood and urine were also documented. Purpose and effect of medication was explained to patients. Treatment was prescribed to the patients willing for medication. Patient outcomes were also analyzed.

Vata, Kapha dominating Tridoshas are involved in the pathogenesis of the Granthi Roga hence Vata-Kaphahara medications are required, Dushyas are Rakta, Mamsa, and Meda hence the medications should possess Raktashodhaka (blood purifier), Lekhana (scrapping or dissolving) properties. Srotodushhti is type of Sanga, Vimargagaman, Atipravritti so by Aamapachana and Vatulanumana drugs this problem can be controlled, and to combat Agnimandhya, medicines having Deepana (stomachic), Pachana (digestive) properties are required; with this hypothesis, Vata-Kaphahara (which alleviates vitiated Vata and Kapha Doshas), Raktashodhana (purification of blood), Lekhana (bio-scraping) and Shothahara (anti-inflammatory) Ayurvedic medicines, easily available in the market such as Shigru Guggulu, Kanchanara Guggulu,[11] and Haridra Khand[12] were chosen for this case series. Kanchanara Guggulu is in clinical use for many centuries in the treatment of Gandhamal (cervical lymphadenopathy), Apachi, Arbuda, Granthi, Kushta, etc.

Study design

Shigru Guggulu (each of 250 mg) two tablets, Kanchanara Guggulu (each of 250 mg) two tablets, and Haridra Khand 3 g were prescribed to take orally after meal at the interval of 12 hours with the Anupana (vehicle or adjuvant) of milk for the duration of 7 weeks to seven patients [content of the drug are depicted in Table 1].
scanning (USS) at some private clinic. As per her USG reports, the uterine fibroid of the size of 35 mm × 13 mm was present in the posterior wall of the uterus. The fibroid was intramural type of fibroid. As per the hypothesis for the Vilayana of Granthi, Lekhana, Kapahara medicines are required in the said problem hence. Combination of drugs quoted above was prescribed to the patient. In the very next cycle, her complaint of pain abdomen before and during the cycle were reduced. After 7 weeks, a repeat USG was done, and the report was of normal study.

**Case 2**

A 42 years old married female having complaints of excessive and irregular periods, pain lower abdomen and back, of variable intensity being present throughout the cycle, visited OPD of PTSR department. She was advised to have her USS to exclude any pelvic pathology as the causative factor of her gynecological complaints. As per her USG reports, it was concluded as uterine fibroids of 28 mm × 18 mm size present in the posterior wall and of 24 mm × 14 mm size in anterior wall. The same combination was prescribed to the patient. After taking medications, she had her menstrual period at the interval of 28 days that was greater than her previous interval, but she reported some heavy bleeding in that cycle. Again up to 3 weeks when patient did not have period which was frequent earlier, patient went for USS and reported as normal study.

**Case 3**

A female patient of 47 years having similar complaints excessive and irregular periods, heaviness in the abdomen, weakness and giddiness reported to the OPD. When USS was advised to the patient to exclude the pelvic pathology, it was reported as adenomyosis in the uterus, increasing the size of the uterus that was 84 mm × 62 mm × 52 mm. The patient was advised to take a second opinion of a modern gynecologist in this regard. The patient was advised for hysterectomy by the gynecologist of the modern fraternity. As the patient was non-affording, she was interested to have Ayurvedic management first for the said problem then would decide for surgical treatment if there was no improvement. As adenomyosis is also the growth disorder of uterine origin, similar to Granthi, the same combination was prescribed to the patient and after the period of 7 weeks, the reduction in the size of uterus (71 mm × 57 mm × 44 mm) was reported as well as was underlined by sonologist and was advised to continue the same treatment for some longer duration.

**Case 4**

A married patient aged 26 years having two kids visited the OPD of PTSR with the complaints of irregular and painful periods with associated complaints of pain in the abdomen and back during and before periods since 1 year. While her USS reported the intramural type of fibroid in the posterior wall of the uterus of 21 mm × 11 mm size. As her kids were small and she was not interested to disturb the integrity of reproductive organs, she insisted for the medical management of her problems, hence same combination was also advised to her. In this case, after 7 weeks the size of the fibroid was reduced and she got symptomatic relief in pain abdomen and backed up to some extent but did not report the normal ultrasound report. She was advised to continue the same treatment for one more cycle. After completion of 12 weeks duration of the treatment, she got relief in her menstrual pattern became regular and pain was almost reduced she went for the USS and reported the normal study.

**Case 5**

A female aged 35 years reported almost similar menstrual problems – excessive and irregular periods associated with pain in the abdomen and back during and before periods. However, there was some variation in her USS report as there was one sub mucosal uterine fibroid of 24 mm × 12 mm size along with bilateral ovarian cysts of 47 mm × 32 mm and 29 mm × 20 mm sizes. She was also prescribed the same treatment regimen and after 7 weeks her ultrasound report was concluded as normal study having uterus of normal size and no ovarian cysts.

**Case 6**

A female aged 46 years having complaint of excessive and irregular period visited the OPD. When USS was advised, it was reported as fibroid uterus with bilateral cystic ovary. With the same treatment protocol after 7 weeks, her scanning report was concluded as normal uterus with a simple cyst left ovary. She got relief in her menstrual problems also.

**Case 7**

A female aged 36 years visited the OPD with alike problem of irregular menstrual problems associated with pain abdomen and back during and before periods. After USS report, it was observed that she also had uterine fibroid of 25 mm × 25 mm × 26 mm. With the same treatment protocol, she also reported normal study after the duration of 7 weeks and got improvement in her menstrual problems.

**Results**

Ultrasoundography is the only diagnostic tool which is being used for the confirmation of diagnosis of uterine fibroid and to assess the results of management that’s why the same was adopted during this case series. Excluding two patients, all the patients reported the normal study on ultrasonography after the duration of 7 weeks. Largest size of the fibroid treated in this study was of 35 mm × 13 mm. Adenomyosis is the entity which results in carcinoma, in that case also encouraging results were reported. Clinically patients got improvement in all the gynecological complaints, which the particular patient had. During follow-up of the patients after 6 weeks; no recurrence was reported clinically as well as on USS.

**Discussion**

In the Samprati (pathogenesis) of Granthi, it is mentioned that Mamsa (muscle fibers), Rakta and Medo Dhatu are vitiated. Several studies have found an association between obesity and an increased incidence of uterine leiomyomas. In a prospective study from Great Britain,[15] the risk of fibroids increased approximately 21% for each 10 kg increase in body weight; similar results were obtained when the body mass index (BMI) was analyzed rather than weight. In a case-control study from Thailand,[16] a 6% increase in risk
was observed for each unit increase in BMI. Similarly, a large prospective study of registered nurses in the United States found an increased fibroid risk with increasing adult BMI, as well as an increased risk associated with weight gain since age 18 years.[17] A case-control study from Japan likewise reported that women with occult obesity (BMI <24.0 and body fat ≥30%) or women with upper-body fat distribution (>0.80 waist-to-hip ratio) were at significantly higher risk.[18] In a study from Boston, Massachusetts, 51% of the hysterectomies- or myomectomies-confirmed patients with leiomyomata were overweight, and 16% were severely obese.[19] If we see the contents of the drugs; Guggulu (Commiphora mukul Hook. ex Stocks.) is analgesic and anti-inflammatory. Guggulu possesses Laghu (light), Raksha (dry), Tiksha (sharp), Vishad (clear), Sara (mobile), Dipana (stomachic enkindle the digestive fire), Anuloman (agents removing Dosa in downward direction), Lekhana (scraping), Medohara, Kapha-Deurangadnya-Hara, Hridya (cardio protective), and Raktaaprasadana (blood purifying agents) properties and is useful in Sthayula (obesity), Prameha (diabetes), and other diseases associated with Sthayula (obesity). Mode of action through modification of thyroid gland functions has been reported with Guggulu in a study.[20]

Kanchanara Guggulu is a classical Ayurvedic formulation, used for Kapha accumulations in the tissues. As Kapha moves deeper within the system, it may manifest as swollen lymph nodes, cysts or growths. Powerful decongestants such as Kanchanara, Triphala (a combination of fruits of Terminalia chebula Retz., Terminalia belerica Roxb., and E. officinalis), and Trikatu (Zingiber officinale Rosc., Piper nigrum L. and Piper longum L.) are mixed with Guggulu to break down and eliminate hardened Kapha. This detoxifying blend supports the proper function of the lymphatic drainage and digestive systems, aiding in the prevention of further Kapha accumulation. Its main ingredients Kanchanara (Bauhinia variegata L.), Varuna (Crataeva nurvala Buch.-Ham.), Triphala, Trikatu, Trijataka may also useful in hypothyroidism. Kanchanara Guggulu supports proper function of the lymphatic system, balances Kapha Dosha, promotes elimination of inflammatory toxins; it is alterative, anti-inflammatory and tonic and is administered in cysts, malignant ulcers, syphilis, fistula, scrofula, sinus, etc., Kanchanara is very useful in extra growth or tumors and helps in reducing bleeding.[21]

Shigru Guggulu is a patent medicine where in Shigru (Morinda oleifera Lam.) a well-known plant in India, rich in iodine, is an essential component of thyroid hormones, T3 and T4. It has Deepana (stomachic), Pacalma, Kaphavatahara properties. It is recommended in Galaganda, Kandu, Sotha, Apachi, Vrana, Medoroga, Vidradhi, Gulma, etc.[22] Pila (Salvadora persica L.) also known as tooth brush tree. It is having Madhura, Tikta, Kaphavatahara properties and is indicated in Gulma and pain in joints.[23] Plant has been reported to have analgesic, anti-inflammatory and bitter stomachic activities. Rasa Sindura is Yogavahi (catalytic agent), so increase the efficacy of the contents of the medicine, as well as it is indicated in the diseases of Vata, Agramandha, and Gulma.[24] Haridra Khandu is indicated in inflammatory disorders.[14] Various ingredients of Haridra Khandu are having Vata-Kapha Shamaka (34%), Tridoshashamaka (33%) properties, which help to bring the affected Doshas in normal level. The main ingredient of Haridra Khandu is tumeric which is processed with ghee and sugar candy. It is one of the best blood purifier so it can be employed in all diseases which originate from Rakta Dushti (vitation of blood). Haridra (Curcuma longa L.) is having properties like Tikta Rasa, Katu Vipaka, Ushna Virya and Laghu and Raksha Gunas, so it acts as good Lekhana Dravya – a scraping agent on Apachita Meda. Haridra digests the Aama, Kapha, and Meda. It has anti-inflammatory and anti-allergic activity. Haridra is not only Kledaghma; it is Kapha Lekhana, Medo Lekhana, Rakta Shodhana, and Vrana Lekhana too.[25] Some scholars have studied Haridra for its Lekhana karma in various ways such as VranaLekhana, Kledaghma, RaktaShodhak, and Garbhshaya Lekhana. Other ingredients having Deepana, Pachana properties, help in Samprativyaghata by treating Agnimandhya. In recent medical research it has revealed that Triphala has a significant medicinal value as a potential detoxifying and anti-cancer agent. Triphala had the ability to induce cytotoxicity (cell death) in tumor cells but spared the normal cells.[26] Similarly, Triphala was effective in reducing tumor incidences and increasing the antioxidant status of animals.[27] Trikatu improves the Agni (digestive fire) and helps in the removal of Aama (toxins) from the body. Trikatu gives strength to the reproductive system, used to treat obesity as it keeps a check on food cravings, works as anti-inflammatory and analgesic due to the presence of Sunthi in it which works as Vata Shamaka, that is, it balances the aggravated Vata Dosha which is mainly responsible for all kind of pains in the body. Nishoth (Opecouma Tertanthum L.) is Medohara (decrease fat), as well as has been reported to have an anti-inflammatory activity.[28] Many ancient texts have also described Nagarmotha (Cyperus rotundus L.) as an anti-inflammatory medicine, a general and nervine tonic, a promoter of uterine contractions too. Kutaki (Picrorhiza Kurrooa Benth.) is mentioned as Lekhaniya (bio-scraping agent).[29,30] Cuminum cyminum Linn., Coriandrum sativum Linn., Elettaria cardamomum (L.) Maton., Trachyspermum ammi Sprague. possess Deepana, Pachana properties which may help to break the pathogenesis by promoting digestive fire. Along with these, E. cardamomum possess antioxidant, gastroprotective, antispasmodic, antibacterial and anticancer properties.[31] Cinnamomum tamala (Buch.-Ham.) T.Nees and C.H.Eberm. own antioxidant activities.[32] Cumin has been found to possess various pharmacological activities such as antimicrobial, anticancer, antioxidant, and immunomodulatory.[33-36] Coriander has been reported to exhibit cholesterol lowering activity anticancer activity hepatoprotective activity and have also been reported to be potent antioxidants in in vitro testing systems. The anti-inflammatory activity of this plant extract has been demonstrated in carrageenan induced paw edema in experimental animals.[17-41] T. ammi is effective lipid lowering agent. It also has anti-inflammatory, hepatoprotective, and gastroprotective activity.[42-45] Abhraka Bhasma and Loha Bhasma improve the quality of Rasa and Rakta Dhatu which in turn enhance the rest of Dhatus and thus improve the general condition of the patient. Comprehensive view point of ancient Ayurvedic scholars regarding the common pathogenesis of localized/nodular swellings (Granthi, Apachi, Galganda Evam Arbuda) was tested clinically in this case series and was found to be true to the rest of time.
Conclusion

Uterine fibroid is seen during reproductive life of a female irrespective to the age, which may result in various menstrual problems such as dysmenorrhea, menorrhagia, and irregular periods, by disturbing anatomical as well as physiological integrity. Medical management of this problem is possible on the basis of Ayurvedic fundamental principles. Vata-Kapha Shamaka, Rakta-Shodhaka, Lekhana, Shothighna and Kledaghnha medicines such as Kanehanura Guggulu, Shigru Guggulu, and Haridra Khandha were found to be very effective in relieving uterine fibroid in this case series. Uterine fibroid is similar to Garbhashayagata (intrauterine) Granthis (encapsulated growth) but a large sample clinical study will only establish the hypothesis and may help to contribute to avoid uterine fibroid surgery in initial stages.

References

4. Gambone JC, Reiter RC, Lench JB, Moore JG. The impact of a hypothesis and may help to contribute to avoid uterine fibroid surgery in initial stages.

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हिंदी सारांश
गर्भाशयज फाइब्रोइड की आयुर्वेदीय चिकित्सा – एक अध्ययन

कामिनी धीमान, इन्दु मिश्री
महिलाओं में प्रजनन वय में गर्भाशय की वृद्धि एक सामान्य बात है। गर्भाशय के अतिरिक्त लियोमायोमा अधिकतर इसका कारण होता है। यह सीम्य प्रकार का अरुि है लेकि जब ये गर्भाशय अंत‑करण से उत्तर होता है, तो इसे फाइब्रोइड कहते हैं। शल्य क्रिया इस की प्रचलित चिकित्सा व्यवस्था है। गर्भाशयज फाइब्रोइड के रूँणों पर कांबनार गुमुलू योग व हुरिद्राखणक के लाभ का अध्ययन किया गया। अल्ट्रामाइर्ज निदान सुविधा को मापदंडरूप में प्रयोग किया गया व पराय गया कि सभी रूँणों में गर्भाशयज फाइब्रोइड पूर्णतः ठीक हो गया। किसी भी रूँण को शल्य चिकित्सा को आवश्यकता नहीं पड़ी। कांबनार गुमुलू व हुरिद्राखणक प्रयोग द्वारा अहिकक्ष रूँणों पर चिकित्सकीय अध्ययन कर इस अनुसंधान को और सत्यापित करने की आवश्यकता है।