



PHARMACOEPIDEMIOLOGICAL STUDY OF UTERINE FIBROIDS IN INDORE CITY

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ABSTRACT

Uterine fibroids (leiomyomas) are common, benign, noncancerous tumors of smooth muscle cells and fibrous connective tissue that develop within the myometrium of the uterus and are estrogen dependent. The aim of this study is to evaluate the approach of gynecologists to the diagnosis and management of uterine fibroids in Indore city. A questionnaire to be self administered was prepared and presented to gynecologists of Indore city. The data was obtained and analyzed to present the result. It was concluded that uterine tumor is seen mostly in females of age group 14-60 and etiology differ in various individuals. View of gynecologists of Indore city represents that hysterectomy is beneficial to overall health and wellness of women bearing uterine fibroids.

KEYWORDS

Uterine fibroids, Leiomyoma, Survey, Hysterectomy.

INTRODUCTION

Uterine fibroids (leiomyomas) are common, benign, noncancerous tumors of smooth muscle cells and fibrous connective tissue that develop within the myometrium of the uterus and are estrogen dependent.¹ Leiomyomas are the most common tumors in women, with prevalence between 30% and 50%² and occurring with clinical significance in 20–40% of women of childbearing age. They affect women primarily during their

reproductive years, spontaneously regressing after menopause in most women.¹ Most fibroids cause no symptoms and are an incidental finding during a clinical or ultrasound examination. Such fibroids require no treatment other than monitoring. However, uterine fibroids are responsible for significant morbidity in the female population. The most common symptoms are associated with menstruation and include heavy menstrual bleeding (menorrhagia), which may lead to iron deficiency anaemia and dysmenorrhoea. Fibroids also cause a



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variety of other symptoms due to their bulk or pressure upon adjacent organs, particularly the bladder, causing varying urinary symptoms like pain, pelvic discomfort, bloated abdomen, painful intercourse, and infertility.^{3,4,5} The etiology and pathogenesis of fibroids is not fully understood, but their occurrence during the female reproductive lifespan indicates an association with the hormones estrogen and progesterone. Prevalence of clinically significant fibroids peaks in the premenopausal years declining after the menopause.⁶ No pharmacological intervention is known to have a long term effect on symptoms of fibroids, although it is possible to use gonadotrophin releasing hormone agonists with addback therapy in the short to medium term in specific instances. The standard treatment for symptomatic uterine fibroids has been hysterectomy (surgical removal of the uterus, including the fibroids). Myomectomy (surgical removal of the fibroids only) has also been an alternative treatment for symptomatic fibroids.⁷ However, surgical procedures are associated with morbidity in many cases, and involve at least several days of hospitalization as well as several weeks of convalescence.⁷⁻⁹ The high incidence of symptomatic uterine fibroids and the high cost of surgical interventions create a significant financial burden^{10,11} that has stimulated the search for alternative approaches. Uterine artery embolization (UAE), a less invasive procedure has been introduced in recent years^{12,13} and it has been shown to decrease both the volume of the treated fibroids and the clinical symptoms.¹⁴⁻¹⁶ However, in many cases UAE requires hospitalization and can occasionally cause a number of major complications.^{7,16-18} Thermal

ablation of uterine fibroid tissue has been performed by laparoscopic laser myolysis and by magnetic resonance imaging (MRI) guided percutaneous laser ablation.¹⁹⁻²¹ Clinically significant decreases in fibroid size and symptoms have been reported following treatment with both modalities. Focused ultrasound surgery (FUS) has been proposed in the past to treat soft tissue tumors deep in the body. When ultrasound propagates through human tissue, the resulting pressure wave causes molecular vibration, which heats tissue.^{22,23} Today, there are numerous alternatives, yet hysterectomy still remains the primary treatment - nearly 250,000 women undergo this procedure each year to treat uterine fibroid conditions. Clinical studies have shown that a minimally invasive therapy like uterine fibroid embolization, a non-surgical procedure that is used to treat more than 20,000 women each year in the United States, provides substantial improvement in major symptoms, including pelvic pain, bulking, bleeding, and urinary problems. Symptomatic uterine fibroids are typically diagnosed in women between the ages of 35 and 54, and are found to be more than three times as common in African-American women than Caucasians. Uterine fibroids can and do occur in women under the age of 35, even as young as the early 20s.²⁴ The aim of this study is to evaluate the approach of gynecologists to the diagnosis and management of uterine fibroids in Indore city.

MATERIALS AND METHODS

Study plan

A questionnaire to be self administered was prepared and appointments were taken from the



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gynecologists for the survey. We presented a questionnaire survey to 35 gynecologists of medical colleges, government and private hospitals, as well as to private practitioners in Indore city. All the filled questionnaires were collected and data was obtained. The data was analyzed to present the result. Following questions were asked:

1. How do patient know if she have fibroid tumors of the uterus?
2. What is the age group of the patients?
3. What percent of different diagnosis are carried out?
4. What are the major problems associated during uterine tumor?
5. Are uterine fibroid tumors cancerous?
6. What are causes of uterine fibroid tumors?
7. What is risk for uterine fibroid tumors?
8. Which type of therapy is mostly used for uterine patient?
9. Name of company's that deals with the production of drug related to this disease?
10. Do you prefer combination of drugs?
11. What are the risks of a Hysterectomy?
12. Will a Hysterectomy affect patient sex life?
13. Which dietary habit favored in this disease?
14. What changes in life are required in this disease?
15. What is the average cost of surgery of uterine tumor?

RESULTS AND DISCUSSION

It's not likely that patient do know when she has fibroid tumors of the uterus. Most uterine

fibroids do not cause any symptoms and do not require treatment other than regular observation by a physician. Fibroids may be discovered during routine gynecological examination or during prenatal care or due to onset of some symptoms. According to survey age group of patient that cause uterine fibroids are 0-18 years (20%), 18-45 years (60%), 45-60 years (19%) and 60-80 years (1%). Different methodologies for diagnosis that are preferred by gynecologists are ultrasound (95%), MRI (4%) and others (1%). Major problems associated during uterine tumor are abdomen pain (60%), frequent urination (30%) and bleeding during menstruation (10%). Fibroids are the most frequently diagnosed tumor of the female pelvis. It is important to know that these are benign tumors. They are not associated with cancer, they virtually never develop into cancer, and they do not increase a woman's risk for uterine cancer. The factors that initiate fibroid growth are not known. The vast majority of fibroids occur in women of reproduction age. They are seldom seen in young women who have not begun menarche (menstruation) and they usually stabilize or regress in women who have passed menopause. No risk factors have been found for uterine fibroids other than being a female of reproductive age. However, some factors have been described that seem to be protective. In some studies, again of small numbers of women, investigators found that as a group, women who have had two live born children have one-half the risk of having uterine fibroids compared to women who have had no live born children. It could not be discerned whether having children actually protects a woman from developing fibroids or whether fibroids contributed



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to the infertility of women who had no children. For the management of uterine fibroids most preferred treatment is surgery (92%), the two kinds of surgery most commonly performed are hysterectomy and myomectomy, hormonal therapy (6%) and chemotherapy (2%). According to knowledge of gynecologists, companies that deals with the production of drug related to this disease are Cipla (30%), Ranbaxy (20%), GSK (10%), Dr. Reddy (10%) and others (30%). Each gynecologist favors use of drugs in combination. Like all operations, a hysterectomy has risks. These include infection requiring treatment with antibiotics (1 in 5 women), internal bleeding (hemorrhage)

requiring a blood transfusion (1 in 15), injury to other pelvic organs such as the bladder, bowel, or ureter (less than 1 in 100), death (1 in 2,000). Most women do not experience an adverse effect on their enjoyment of sex. Often the reverse is true with an improvement in their sex life especially if bleeding was prolonged and the uterus was causing pain during intercourse. It is suggested to take light food, avoid oils and fats and take juices and green vegetables and patient must exercise regularly, take complete sleep and avoid stress and anxiety and the average cost of surgery of uterine tumor is near rupees 20,000 approximately.

| Questions | Answers | Percentage |
|-----------------------------------------------------------------------------------|------------------------------|------------|
| What is the age group of the patients? | 0-18 years | 20% |
| | 18-45 years | 60% |
| | 45-60 years | 19% |
| | 60-80 years | 1% |
| What percent of different diagnosis are carried out? | Ultrasound | 95% |
| | MRI | 4% |
| | Others | 1% |
| What are the major problems associated during uterine tumor? | Abdomen pain | 60% |
| | Frequent urination | 30% |
| | Bleeding during menstruation | 10% |
| Are uterine fibroid tumors cancerous? | No | 100% |
| Which type of therapy is mostly used for uterine patient? | Surgery | 92% |
| | Hormonal therapy | 6% |
| | Chemotherapy | 2% |
| Name of company's that deals with the production of drug related to this disease? | Cipla | 30% |
| | Ranbaxy | 20% |
| | GSK | 10% |
| | Dr. Reddy | 10% |



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| | | |
|-------------------------------------------------------|----------------------------------------------------------------------|-----------------|
| | others | 30% |
| Do you prefer combination of drugs? | Yes | 100% |
| What are the risks of a Hysterectomy? | Infection requiring treatment with antibiotics | In 20% cases |
| | Internal bleeding requiring a blood transfusion | In 6.66% cases |
| | Injury to other pelvic organs such as the bladder, bowel, or ureter | In 1% cases |
| | Death | In 0.05 % cases |
| What changes in life are required in this disease? | Regular exercise | 30% |
| | Avoid fat and oil | 60% |
| | Avoid stress, anxiety | 10% |
| What is the average cost of surgery of uterine tumor? | Cost of surgery of uterine tumor is near rupees 20,000 approximately | |

CONCLUSION

From this survey we concluded that uterine tumor is seen mostly in females of age group 14-60. Etiology differ in various individuals with some inherited it owing to genetic, other being prone to infection, or a few affected by any surgery. Ultrasound technique is preferred and mostly used for diagnosis of uterine tumors. Generally surgery is standard treatment for uterine tumor. In case those female who wishes babies in coming year they go through the hormonal therapy and chemotherapy. For complete Eradication of tumor the best advised treatment is to complete removal of uterus. The study

found that women who had a hysterectomy had marked improvement in their symptoms following hysterectomy, as well as significant improvement in their overall physical and mental health one year out from their surgery. The study concluded that for those who have uterine tumor problems that had not responded to non-surgical intervention, hysterectomy may be beneficial to their overall health and wellness. Women may enjoy good sexual life even after hysterectomy and hence hysterectomy allows women prolong life.



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