

Evaluation of Non-Surgical Therapeutic Interventions and Alternatives to Hysterectomy for Uterine Fibroids

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Abstract- Objectives: The basic aim and objectives of this study were to assess the non-surgical therapeutic interventions, evaluation of alternatives to hysterectomy for uterine fibroids and the role of pharmacist regarding management of uterine fibroids.

Methodology: The survey was conducted in different government and private hospitals of Lahore. A detailed data collection form was designed and was filled in a face to face interview with patients and also by reviewing their prescriptions.

Results: 70% of the females experienced severe pelvic pain and heavy bleeding for which tranexamic acid was commonly prescribed. NSAIDs 95% were used by the patients prior to the treatment of its symptoms. 75% patients opted uterine fibroid embolization because of their desire of future pregnancy. 65% patients showed quick recovery after undergoing the procedure. Only 30% patients had communication with pharmacist at the time of taking medicine from hospital.

Conclusion: Early detection and physical examination by the health care provider can help in early diagnosis. Instead of undergoing the painful surgery procedure, patients should be given suitable medication by the pharmacist or the health care provider. Also, pharmacist should also counsel the patient about the correct drug and its use-age to overcome the disease.

Index terms: Evaluation, non-surgical therapeutic interventions, alternatives to hysterectomy.

1. INTRODUCTION

Fibroids are the most frequently seen tumors of the female reproductive system. Fibroids, also known as uterine myomas, leiomyomas or fibromas are firm, compact tumors that are mainly made up of smooth muscle cells and fibrous connective tissue that develop in the uterus. According to an approximation, between 20 to 50 percent of women of reproductive age have fibroids, although not all are identified. The origins of uterine fibroids is not exactly known, but the factors like genetic abnormalities, alterations in the growth factor (proteins formed in the body that direct the rate and extent of cell proliferation) expression, abnormalities in the blood vessel (vascular system) and tissue response to injury have all been proposed to play a role in the growth of these fibroids. Fibroids usually shrink after menopause and do not show indications anymore. Early pregnancy decreases the possibility that fibroids will develop. [1]

A prominent feature of uterine fibroids is their dependency on the ovarian steroids estrogen and progesterone. Ovarian activity is essential for fibroid growth and most fibroids shrink after menopause. The sharp elevations and declines in the production of progesterone and estrogen that are related with early pregnancy and the postpartum period have a dramatic outcome on fibroid growth. [2]

The symptoms of uterine fibroids fluctuate from mild to severe troublesome symptoms. Some women may have no symptoms at all. However, abnormal uterine bleeding is the most shared symptom of a fibroid. Patients may also experience symptoms like pelvic pain and frequent urination and a sense of urgency to urinate and hardly an inability to urinate, pressure on the rectum resulting in constipation, pelvic pressure in the lower abdomen, pain during intercourse, infertility and/or a pelvic mass exposed by a health care practitioner during a physical examination. [3]

Uterine fibroids can be spotted during a routine pelvic examination. This may indicate a firm, uneven pelvic mass. In addition to a complete medical history and physical examination, diagnostic procedures may include X-ray, transvaginal ultrasound, MRI, hysteroscopy, endometrial biopsy and blood test to check for the iron deficiency anemia if heavy bleeding is caused by the tumor. [4]

Management of a patient with uterine fibroids is greatly dependent on the presentation and patient requirements. Management options are affected by the indications, age, desire to conceive etc. The treatment options for fibroids vary. Since most fibroids stop developing or may even shrink as a woman reaches menopause. 'Watchful waiting' may be advised by the health care provider. [5]

Numerous approaches are available for the treatment of uterine fibroids. These include pharmacologic choices, such as hormonal therapies and gonadotropin-releasing hormone agonists. Hysterectomy is the most common surgical procedure. Non-steroidal anti-inflammatory drugs (NSAIDs) and anti-fibrinolytics are the non-hormonal alternatives used for treatment of uterine fibroids. Tranexamic acid stops tissue plasminogen activator, which exerts fibrinolytic activity and exacerbates clots; the result is anti-fibrinolysis. Earlier, combined oral contraceptives were considered a hazard for fibroid growth, but today the risk has been reduced to 17% in modern users. Medical treatments may provide only temporary break from the symptoms of fibroids. Once the treatment is stopped, fibroids repeatedly grow back and symptoms arrive. However, these are safe to use but can have side effects which can be severe too. [6]

Alternatives to hysterectomy are present for the treatment of uterine fibroids. Uterine Fibroid Embolization is one of the procedures. It stops the blood supply to the fibroid. The fibroid then shrinks and collapse. Pregnancy is not common after this method yet it preserves the uterus. So it is not recommended to women who want to become pregnant. Uterine fibroid embolization is completed under local anaesthesia. Another treatment used to destroy fibroids without surgery is MRI guided focused ultrasound. This treatment uses high-intensity ultrasound waves to break down the fibroids. Studies indicate that this treatment is safe and works fine at releasing symptoms. Endometrial ablation is a procedure used to ablate the uterine lining. This is used to treat abnormal uterine bleeding. A lighted viewing instrument hysteroscope is used to see inside of the uterus. The endometrium heals by damaging, which typically reduces or prevents uterine bleeding. [7]

Another non-surgical therapeutic intervention for uterine fibroids are Aromatase Inhibitors which offer probably reduced side effects. Anastrozole and Letrozole are the drugs related with reduction in fibroid size. They also cause the thinning of blood and stoppage of bleeding. [8]

Pharmacist should counsel the patient prior to hysterectomy about medications. To best help the patients, a pharmacist should realise the use of antiemetic and pain control medications. He can also advice the patients about the type of the treatment for uterine fibroids. They should counsel patients about this disease in order to deliver an effective prevention strategy, improve early discovery to slow the growth of fibroids, develop better treatment modalities, reduce reappearances after treatment and assessment of long-term results. [9]

2. MATERIALS AND METHODS :

An observational and cross sectional study was conducted at different private and public sectors hospitals of Lahore, Pakistan. The duration of the study was 2 months and 100 patients of uterine fibroids were selected randomly. A data collection form was designed to get patient information which included patient's demographics along with the evaluation of non-surgical intervention of Uterine Fibroids, alternatives to hysterectomy and different medical treatments prior to surgery. The collected data was then analysed and results were shown in the form of graphs.

3. RESULTS

After the evaluation of non-surgical therapeutic interventions and alternatives to hysterectomy for uterine fibroids in different hospitals, it was found that medications and some non-surgical procedures can be helpful in getting rid of the disease. 75% patients had undergone the procedure of MRI and it was the most preferred method for the diagnosis of disease. (fig.1) NSAIDs were mostly used by the patients as prior treatment of symptoms. The most common drugs used were tranexamine as it stops heavy bleeding. 95% patients were prescribed tranexamine. To 80% females, naproxen was prescribed to relieve the pelvic pain and as an anti-fibrinolytic, norgesic forte was given. (fig.3) Uterine fibroid embolization was prescribed to 70% of the females who did not wanted pregnancy in future yet it preserves the uterus. Only 30% patients had interaction with pharmacist at the time of taking medication from hospital's pharmacy. (fig.4).

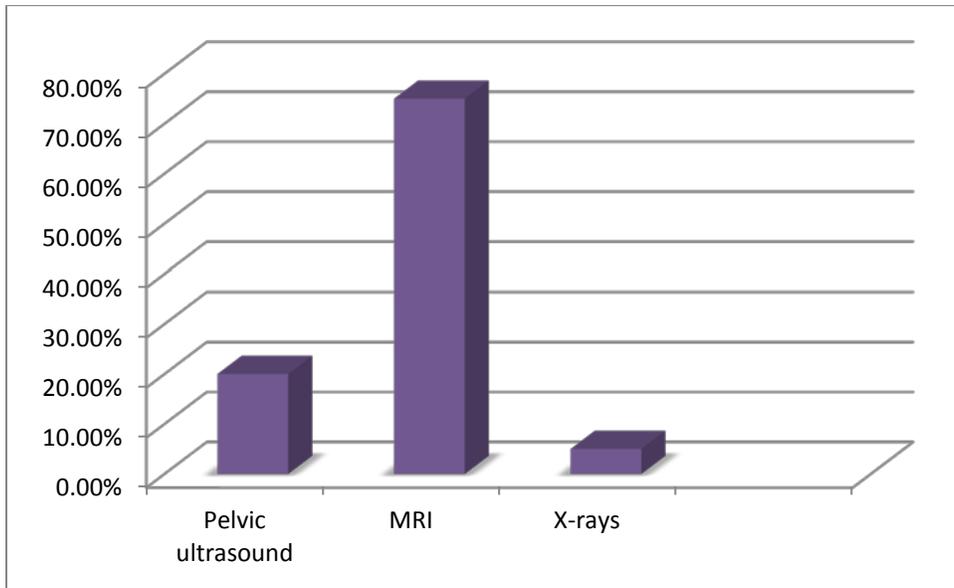


Figure 1: Most common diagnostic procedure

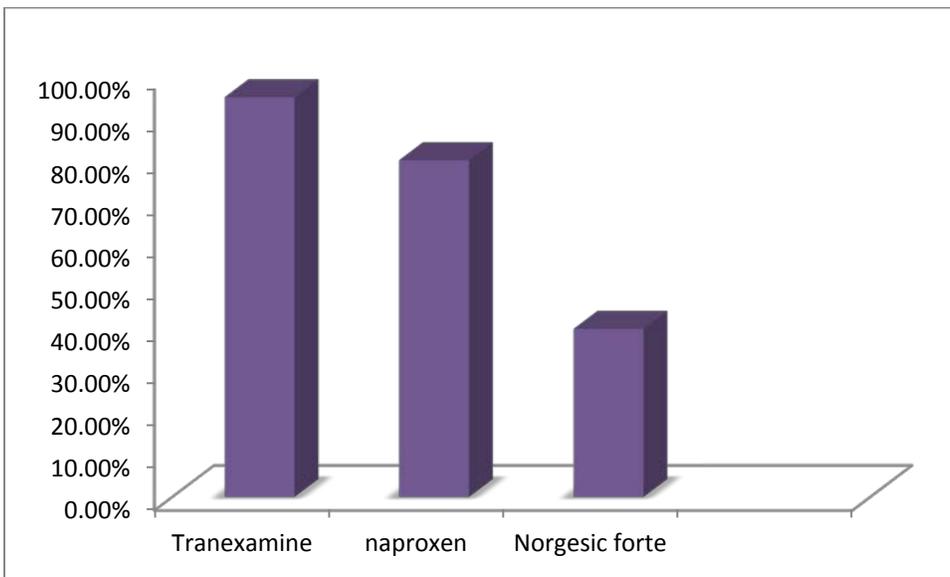


Figure 2: Most used medication

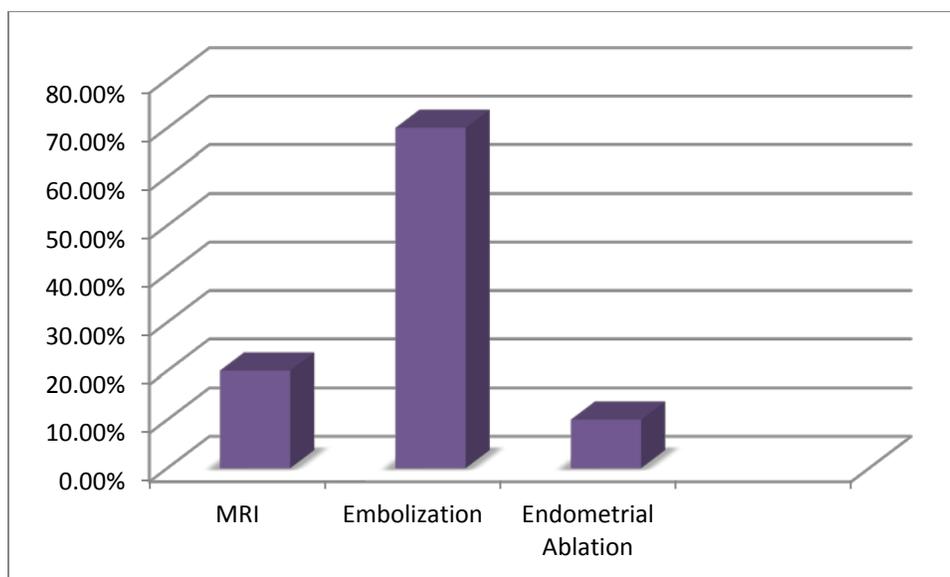


Figure 3: Most preferred non-surgical procedure

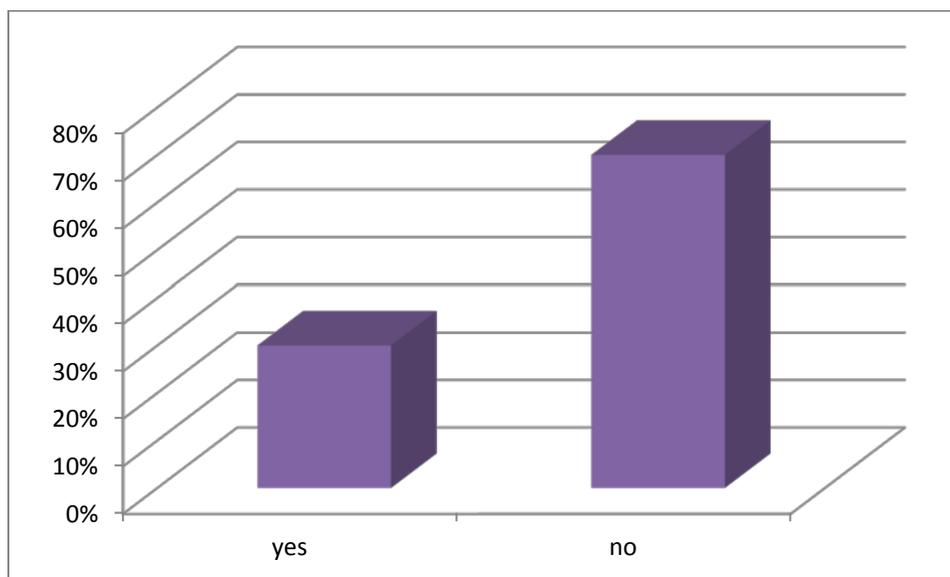


Figure \$: Interaction with Pharmacist

4. CONCLUSION

Uterine fibroids being a muscular tumour that nurture in the wall of uterus characterized by heavy bleeding and pain in pelvic region. Symptoms may vary from mild to severe. Prior treatment of symptoms included NSAIDs. Medications like anti-fibrinolytics and analgesics are mostly prescribed to avoid any surgical procedure. Endometrial ablation, uterine fibroid embolization and MRI are few non-surgical methods for the treatment of uterine fibroids. Need of the hour is to aware people to avoid hysterectomy and opt non-surgical processes as an alternative and involvement of pharmacist to improve patient's quality of life.

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