Journal of Islamabad Medical & Dental College (JIMDC); 1211(1):37-38

Case Report

Uterine Leiomyomata –Unusual Number Managed with Conservation of Uterus

Salma Kafeel*, Saeed Alam, Huma Mushtaq***, and Riffat Bibi******
* Consultant Gynaecologist & Obstetrician, Salma & Kafeel Medical Centre, Islamabad
** Prof of Pathology, Islamabad Medical and Dental College, Islamabad, (Bahria University, Islamabad)
*** Assistant Prof. Pathology, Islamabad Medical and Dental College, Islamabad(Bahria University, Islamabad)
**** Scientist, Salma & Kafeel Medical Centre, Islamabad

Abstract
Uterine leiomyomata are the commonest neoplasms of female reproductive tract. On an average there are six to seven fibroids in the affected uterus. These neoplasms may lead to symptoms like menorrhagia, dysmenorrhea, pressure effects, urinary frequency, pelvic pain, infertility and pelvic mass. Here we present a case report of 34 years old nulliparous women having an unusual number (48) of fibroids. As she was nulliparous and wanted to conceive, her uterus was conserved and all the fibroids were surgically removed.

Key words: Uterine leiomyomata, Fibroids, Menorrhagia, Infertility

Introduction
Uterine leiomyomata or fibroids are the commonest neoplasms of the female reproductive tract and effect 20-40% of the premenopausal women.[1] Although benign, these neoplasms lead to symptoms like menorrhagia, dysmenorrhea, pressure effects, urinary frequency, pelvic pain, infertility and pelvic mass.[2] Uterine leiomyomata are present in three different locations in the uterine wall and are termed according to their site. Sub-serosal leiomyoma projects outwards from the uterine surface: intra-mural leiomyoma lie within the wall of the uterus while Sub-mucosal project into the uterine cavity.[3] Over 75% of reproductive age females have on an average affected uterus containing six to seven fibroids.[4] The size and location of fibroid within the uterus may lead to infertility and cause pregnancy related complications.[5] A case report is being presented in which the number of uterine leiomyomata were unusual and forty eight fibroids were removed per-operatively with conservation of uterus.

Case Report
A thirty four years old nulliparous women having complaints of menorrhagia and pressure symptoms for the past six years presented in the private clinic of one of the authors for advise and treatment. The patient was examined and routine investigations were carried out. Her ultrasonography revealed multiple uterine fibroids. These findings and available treatment options were explained and discussed with the patient. As she wanted to conceive, most suitable treatment option was to remove the fibroids and conserve the uterus. She was operated upon and peroperative findings included enlarged, distorted uterus containing multiple nodules of variable sizes. A total number of forty eight fibroids were carefully identified and surgically removed. Specimen containing all the fibroids was sent for histopathological examination in formalin fixative. Gross examination findings of the specimen confirmed a total number of forty eight fibroids of variable sizes collectively weighing 2.1 kg. (Fig.1) The largest fibroid was 12 cms in diameter and smallest one measured 0.8 cms in diameter. Cut surfaces showed a characteristic whorled pattern and in some of the fibroids there were focal degenerative changes. Histopathological examination revealed features of benign leiomyomata and no evidence of malignancy was seen.

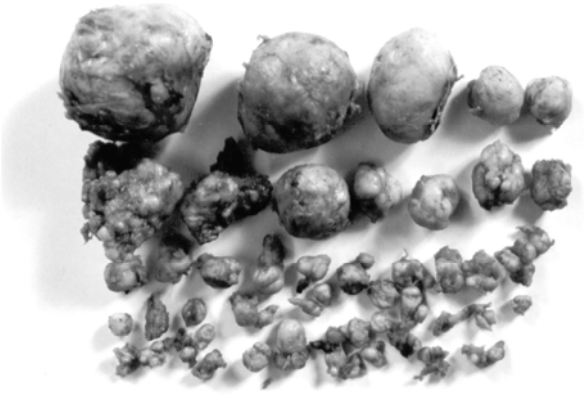

Figure 1: Gross appearance of uterine leiomyomata surgically removed

Discussion
Uterine leiomyomas can occur singly but are often multiple and show variation in sizes. They are more frequently present in women of African origin than women of other ethnic groups. African American women are reported to have an earlier age of uterine leiomyoma diagnosis. These women have larger and more abundant tumors, more severe

symptoms and higher rates of hysterectomy. Risk factors for leiomyomas include early age of menarche, nulliparity, oral contraceptive use and obesity.[4]

The list of treatment options for women having leiomyomas is expanding rapidly. New procedures have been introduced other than hysterectomy and myomectomy, such as Uterine Artery Embolization (UAE) and High intensity focused ultrasound (HIFU). These procedures are in demand by women who want minimized recovery time and preservation of their uterus.[6] The type and timing of intervention should be individualized, based upon factors such as size of the fibroid, its location, severity of symptoms, patient age, reproductive plans and obstetrical history.[7]

Those women who are asymptomatic should be initially observed without any treatment. Symptomatic women who desire fertility preservation should have non-surgical treatment first and then myomectomy. Symptomatic women who do not desire future fertility but wish to preserve the uterus can have non-surgical treatment or myomectomy, myolysis or uterine artery embolization. Women with pregnancy complications should have myomectomy procedure. Whereas women having severe symptoms and who desire definitive treatment should have hysterectomy done.[8] Hysteroscopic myomectomy can be considered as first line surgical conservative therapy for management of intracavitary myoma.

With a newer understanding of modern surgical techniques more tailored options are available for the patients. In nulliparous women myomectomy followed by GnRH analogs for 3 months seems to be the best surgical approach for multiple fibroids. Asymptomatic fibroids may be managed by reassurance and careful follow-up. Medical therapy should be tried as first line of treatment for symptomatic myomas while surgical therapy should be reserved only for appropriate indications. Preoperative gonadotrophin hormone releasing hormone treatment decreases the size and vascularity of myoma, but may render the capsule more fibrous and difficult to resect. Uterine artery embolization is an effective alternative treatment for women having large symptomatic myomas and are poor risk or wish to avoid major surgery.[9]

The mechanism that initiates uterine fibroid growth and pathogenesis is not completely understood. There is still no definitive evidence why fibroids develop and why do they grow. Risk factors attributed to development of fibroids include earlier menopause, fewer births after age 24, alcohol intake, sedentary life style, prenatal DES exposure and higher circulating levels of LH are also linked to fibroids.[10] Researchers are trying to find out the causative gene interaction, enzymes responsible for estrogen biosynthesis produced locally and mechanism responsible for cell cycle regulation in uterine fibroids.

References

1. Stenchever MA, Droegemullar W, Herbst Al, Mishell DR, eds. Comprehensive Gynecology. 4th eds. St Louis: Mosby Inc; 2001.
2. Buttram VC, Jr, Reiter RC. Uterine leiomyomata: Etiology, symptomatology, and management. Fertil Steril 1981; 36:433-445.
3. Roohi M, Tazeen DR. Sub Mucous Fibroids (Effective Surgical Approach). The Professional 2005; 12: 2
4. Lynch AM, Morton CC. Uterus: Leiomyoma. Atlas Genet Cytogenet Oncol Haematol. May 2007.URL : http://AtlasGeneticsOncology.org/Tumors/leiomyomID5031.html
5. Yoon SW, Kim KH, Kim SH, Ha DH, Lee C, Lee SY, Jung SG, Kim SJ. Pregnancy and natural delivery following magnetic resonance imaging-guided focused ultrasound surgery of uterine myomas. Yonsei Med J 2010; 51(3):451-453.
6. Alison F, Jacoby MD. New and emerging treatments for Uterine Leiomyomas. Adv. Stud. Med 2006; 6 (6): 260-266.
7. Stewart EA. Uterine Fibroids. Lancet 2001; 357:293.
8. Evans P, Brunsell S. Uterine Fibroid Tumors: Diagnosis and Treatment. Am Fam Physician 2007; 75:1503-8.
9. Nirmila Duhan. Current and emerging treatments for uterine myoma-an update. International Journal of Women's Health 2011; 3 231-241
10. NIEHS study on fibroids. http://dir.niehs.nih.gov/direb\/studies/ufs/home.htm.