Common Pathologies of the Female Reproductive Tract

Uterine Fibroids

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Fibroids refer to a group of soft tissue tumors that originate from the muscular layer & elements of the uterus (& sometimes, its appendages). By definition, uterine fibroids are benign in nature and the problems associated with them relate to the fact that they occupy space in or on the uterus, expand its size and volume and cause pressure effects on adjacent organs.

The incidence of uterine fibroids varies with respect to geographical location and race. It is more common amongst the Negroid race and the reason for this is yet unclear. It is estimated that about 60 to 70% of all Negroid women have uterine fibroids. In most cases these go undiagnosed all their lives. In some cases the fibroids are discovered during routine check ups or examinations for other, unrelated issues. Only in about 15 to 25% of cases of women with fibroids do the fibroids constitute problems that require a physician's attention. We shall look at some of the symptoms associated with fibroids later in this article.

An important question that comes readily to mind for physicians and patients alike is: "what causes uterine fibroids?" The candid answer to this question is that we do not still know very clearly what causes some women to develop fibroids and some not to. We do not yet know why some have large fibroids and others just barely discernable tumors, while having the same levels of hormonal stimulation. We cannot yet explain why most Negroid women will have multiple fibroids, while their Caucasian counterparts have solitary fibroids. What we do know now, however is that fibroids appear to be genetically inherited. It is now known that the genes for developing fibroids are inherited in about 67% of cases along paternal lines. Naturally the fathers of the recipients of such genes would not suffer from uterine fibroids (as they have no wombs) and so it would be difficult to predict who is at risk for developing the condition and who is not. The above is further made difficult by the fact that inheritance of the genes does not necessarily denote expression of the same. What this means is that in a family, in which the father passes the genes to his daughters, some may have fibroids and others may not. It is more common though to expect fibroid formation in 1st degree relatives (sisters, mother).

As mentioned above, fibroids take their origin from the muscular elements and the muscular layer of the womb. This layer forms the bulk of the womb, which is defined as a muscular organ. The muscular layer lies between a thin inner lining of the womb and a thin outer covering of the same. As a result of this the fibroids may extend inwards, towards the inner lining of the womb (sub mucous fibroids), or outwards, towards the free abdominal cavity (sub serous fibroids). The fibroids may also remain strictly within

the muscular layer of the womb (intramural fibroids). Lastly combinations of the above locations are possible for a single fibroid mass (e.g. intramuro-submucous fibroids).

The above localizations of uterine fibroid largely determine the symptoms and complaints that the patient would present to her physician with, on one hand, and the clinical picture the physician would draw, along with the method(s) of management he or she would suggest, on the other. The most common complaints associated with fibroids that are sub serous are those of occasional low abdominal pains, abdominal swelling, a mass that can be felt through the abdomen, and in extreme cases, pressure symptoms of adjacent organs- frequent passage of relatively small volumes of urine, frequent urinary tract infections & frequent constipations and difficulty in passage of stools. Intramural fibroids usually expand the size of the uterus and are usually easily seen on sonography. They may cause any of the above symptoms too, depending on the location on the uterus proper- anterior wall, posterior wall, dome of the uterus, towards the neck of the womb etc. As a general rule, the fibroids on the posterior wall of the uterus cause more pains than those on the anterior wall, and those on the anterior wall cause more pressure symptoms related to the bladder. Sub mucous fibroids tend to cause bleeding problems- increased menstrual flow, bleeding or spotting outside menses, heavy menstrual flow. They also are directly related to infertility and miscarriages as they occupy the space the embryo or fetus is to occupy. It is also thought that such sub mucous fibroids may act like intra-uterine contraceptive devices do, and prevent pregnancy from occurring.

From the foregoing, it stands to reason that the management of fibroids would depend on the symptoms the patient presents with, the locations of the fibroids, the desire or not of the patient to preserve her fertility etc. Your physician would be in the best position to advice based on all the data available to him/her. Generally speaking there are 2 major treatment options, apart from masterly inactivity, where the patient and her physician adopt a ‘wait and see’ approach. The two options are medical management and surgical management. Both options have their pros and cons and the physician would advice on which is better for his/her patient based on the data available to him/her, his/her experience and the treatment options available in that locale.

Generally speaking, surgical management intends to remove the fibroids, while medical management aims at shrinking the fibroids, by depriving them of the hormones that support their growth. It stands to reason that once the drugs used to achieve shrinking of the fibroids have been eliminated from the system of the patient the fibroids would start growing again. It is also true that a womb that has formed fibroids would retain its ability to form new fibroids after surgery has eliminated them. Risk and benefit issues must be thrashed out before one or another form of management is embarked upon. For most Negroid women, open laparotomy (surgery with opening of the abdomen) is preferable as treatment option. This is because they tend to have multiple fibroids and this method of treatment is the only one that ensures that most of the fibroids are taken out, while preserving the fertility of the patient. Other forms of surgical management- laparoscopic laser treatment, embolization techniques, are preferable for those that have solitary fibroids and for whom preservation of fertility is not really an option.