Annotation: Some Facets of Uterine Leiomyomata

This annotation by and large pertains to the article in this issue on "Clinical Presentation and Demographic Association of Uterine Leiomyomata", few aspects of which prompted the ensuing discussion. To address any further features of this vast subject, more than those included here, would be out of place for this script.

Terminology: Few names of these benign neoplasms of the myometrium have been mentioned, here and there in the article, but it is of interest to note that they were known to the ancient people as "womb stones" and later as fibroma(s), myoma(s), fibromyoma (ta), leiofibromyoma (ta) and currently mostly as leiomyoma (ta), but commonly as fibroid(s).

Site(s), Size(s), Number, Type(s) and Symptomatology: Subserous, intramural and submucosal locations have been spelt out in the article, along with stress placed on the axial position of the fibroids. Maximum number encountered was of intramural type with mean size of 7.58 cms, in association with menorrhagia as the most common symptom in the pre-menopausal women of the study series. A mention has been made of degenerative changes, as well, in the symptomatic women.

It is however important to include the topographic disposition of the fibroids, also. Had the series included women of somewhat younger age group, infertility would have been more obvious. In any case a large subserous broad ligament fibroid, with the tube stretched over it would obstruct its lumen and contribute to infertility, in addition to causing pressure symptoms. On the contrary, even a tiny fibroid located at the utero-tubal junction can cause blockage of the tube and lead to failure of conception. The paper does mention distortion of the route for sperm ascent, in which connection cervical fibroids, though infrequent, can be very significant.

Variations in the sizes of fibroids have been mentioned, but they may be mere seedlings to small, large or very large to mammoth size, filling up the abdomen, till the xiphisternum. There may be a single fibroid, of any size or multiple ones, which may reach something like 200 or so (I have encountered up to 180 in an infertile woman). Most of the above facts are too well known for the references to be quoted.

Fibroids may be typical, or atypical of numerous types going on to potential malignancy or rarely to sarcomas of various varieties. There could of course be degenerative changes also.[1] Fibroids may be asymptomatic, when first encountered or have a host of accompanying symptoms.

Vascularity and Vasculature: The fibroids, with their peripheral blood supply may be minimally vascular to highly vascular. Presence of 'Venule Ectasia' has been mentioned in the article, under discussion, as a contributory factor for excessive menstrual blood loss.

Yes indeed, it is the fine symmetrical small arteries and veins of the myometrium and in particular the beautiful spiral arterioles and their accompanying venules which get compressed and distorted by the centripetal

growth of the fibroids, leading to the havoc of venous lake formations, as shown in Figure 1. The coalescence of these lakes can lead to disruption of a conceptus, if it happens to get lodged over the surface of such fibroid related vascularly disturbed endometrium.

Figure I. Venule Ectasia caused by fibroids: A microradiograph
Source: An author's collection from *Gynecol Obstet* of 1970s

Q. While going through the article under discussion, a question was learking in my mind as to how would the gynaecologists of the concerned hospital; or for that matter, those of any tertiary hospital of the country; have managed the cases of the series studied? This is a burning issue, which needs to be addressed in brief, at least. In these pre-menopausal women mostly with menorrhagia, who had completed their families, offering and insertion of Levonorgestrel-secreting intrauterine system, would have perhaps been considered, had the uterine cavity not been too much displaced or distorted. Although the device does get expelled, during very heavy episodes of menstrual flow, at times, but it goes a long way in the reduction of menorrhagia and improvement of anaemia.[2,3]

Failing which the next choice under the prevailing circumstances would have been of Hysterectomy, more often Abdominal (A) or perhaps Vaginal (V), depending on the size of fibroids/volume of the uterus, laxity of the vaginal walls and the experience of the operators.

Gonadotrophin Releasing Hormone Analogues (GnRHa),[4] can be used in parous women (without the fear of infertility), three to four months pre operatively for very large and specially vascular fibroids, with effective reduction in the volume of the uterus and gradually reducing menstrual blood loss, thus :-

- Correcting iron deficiency anaemia
- Making A. Hysterectomy easier
- Shortening the operative time
- Lesser need for vertical incision
- V. hysterectomy becoming more feasible and
- Overall reduction of complications.

But unfortunately GnRHa are far too expensive for common use, in our women.

Laparoscopic[5] of various types, with minimally invasive approach, could have been carried out, as the facilities for these procedures do exist in some of our institutions, but the required expertise is sparce, in our set up.

As the risk of any operative procedure cannot be undermined totally, the last decade or two have ushered in the era of alternate modes of treatment of symptomatic fibroids, particularly in women desirous of retaining their uteri, whether nulli- parous or even parous. For nulliparous woman desiring to have a family the fine art of open Myomectomy is still a standard in countries like ours.

Uterine Artery Embolisation (UAE) for large symptomatic fibroids, having started in 1991 by Ravina, is now widely used in UK and many other countries. Comparative analysis of hysterectomy versus UAE [6] for symptomatic fibroids showed safety and effectively of both procedures, but there were fewer side effects and complications and shorter hospital stay in UAE group, in some of whom though, further treatments were required. The choice of the women desiring UAE was given priority. UAE is a minimally invasive alternative cost effective treatment for symptomatic fibroids.[7]

It is being used in Shaukat Khanum Hospital, Lahore, I am told, but I am unaware of its use elsewhere, in our country.

Magnetic Resonance Guided Focused Ultrasound Surgery (MRgFUS), is yet another uterine conserving modality, on the scene for symptomatic fibroids.[8,9] It was approved by FDA in 2004 and is a non invasive device with real time MRI imaging for thermal ablation of fibroid tissue, ensuring the safety of surrounding structures. Its advantages over UAE are lesser, infection and febrile illness, with overall low risk of post procedural complications. These and greater cost effectiveness, clinical effectivity and patient preference have made it the method of choice within budgetary constraints. But do we have this technology anywhere in the country? No, not to my knowledge.

In any case no method is a panacea for all women with symptomatic fibroids and individualized approach has to be applied.

Suggestions and Hope

Let us hope that with alive interest and active honest efforts, along with the Governmental or Philanthropic support, etc, we can achieve the goal of providing safe alternatives to surgery for our women, with symptomatic fibroids.

WHY CAN`T WE DREAM AHEAD AND EXECUTE THE PLANS THERE AFTER

Editor-in-Chief

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