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Uterine fibroids: Repeat myomectomy converted to supracervical hysterectomy. A case report and literature review.

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Uterine fibroids: Repeat myomectomy converted to supracervical hysterectomy. A case report and literature review.

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Abstract

Uterine Leiomyomata or fibroids as they are more commonly referred to are the most common benign neoplasm affecting females within the reproductive age bracket. This is more so amongst women of African descent. A plethora of treatment options exist however this must be individualized. A case of a 38 year old nulliparous African female with massive uterine fibroids undergoing a planned repeat myomectomy but eventually ending up with a life saving hysterectomy is discussed below.

Introduction

Uterine fibroids are benign monoclonal tumours of the smooth muscles of the uterus.1, 2Their prevalence ranges from 20 to 50%, one series demonstrated fibroids in over 60% of postmortem specimens examined for fibroids.3It is commoner in black women, a study showed the incidence for blacks being three and one third that of white women.3, 4 They are common in women of reproductive age and being associated with low parity.4 They tend to regress after menopause.3, 4Fibroids enlarge under the influence of estrogens and progesterones.1, 3

Various treatment modalities exist ranging from medical, surgical, interventional radiology and other newer techniques such as Magnetic Resonance Imaging (MRI) guided high frequency focused ultrasonography.3-5

Amongst the various surgical options abdominal myomectomy and hysterectomy have an established place in fibroid management.5, 6

Case Report

A 38 year old nulliparous African female whose last menstrual period was on 11/03/2015. She presented with a history of abdominal swelling of 8 years duration, heavy menstrual blood loss and intermenstrual bleeding, both of 2 years duration. She had undergone myomectomy 10 years prior to presentation at a different healthcare facility. Physical examination revealed moderate pallor, blood pressure of 110/70 mmHg, pulse rate of 86 bpm, the uterus was equivalent to a 36 week gestation in size, vaginal examination was unremarkable. Her laboratory investigations included a haematocrit of 29%, other components of the complete blood count were within normal limits, abdomino-pelvic ultrasonography revealed a uterus with multiple fibroids of varying sizes mainly intramural, the largest measuring 80mm in diameter. The endometrial plate was distorted, normal cervix was visualised and an impression of huge uterine fibroids was made. Coagulation profile was with normal limits, serum electrolytes, urea, and creatinine levels were within normal limits, pregnancy test was negative, Hepatitis B and C serology were negative, HIV I and II testing was negative. She was counselled on her therapeutic options and opted to have repeat myomectomy. The risks of repeat surgery were highlighted and the patient gave informed written consent for both myomectomy and hysterectomy (the consent for hysterectomy was to serve as a backup plan in the event of massive haemorrhage).

Eight days after presentation laparotomy was done using a mid - line incision, multiple loops of bowel were adherent to the posterior uterine wall, these were dissected free and a size 22 Foley's catheter was used as a tourniquet. Myomectomy commenced with the removal of over 20 fibroids (subserosal, intramural and submucous), however there were still numerous fibroids of varying sizes in - situ. The patient had received 3 units of compatible blood during the procedure and a decision was taken intraoperatively that hysterectomy would not only produce a better outcome but might also be lifesaving in light of both the enormous number of unremoved fibroids, the potential difficulties in reconstructing the uterus and the level of blood loss already encountered. A supracervical hysterectomy was done and the patient was transferred to the intensive care unit where she received a fourth unit of blood. Her postoperative recovery was satisfactory. She was discharged 7 days after the procedure.

Discussion

The treatment options available to women with uterine fibroids should ideally achieve the following; relieve signs and symptoms, significantly reduce the fibroid size, maintain fertility where still desired, improve quality of life, target the fibroids without unintended systemic side effects, and be convenient for the patient.6

Because of the potential effects on fertility no surgical or medical treatment option completely satisfies these criteria.6, 7 Our patient was nulliparous, single and desirous of future fertility hence she wanted a repeat myomectomy rather than other treatment options some of which reduce the chances of future fertility. Hysterectomy as a definitive surgical option is better suited for candidates who meet the criteria for surgery and no longer desire future fertility or for whom a decision to remove the uterus has been taken.7, 8, 9 It ranks as the commonest surgical intervention for symptomatic fibroids worldwide.5, 6 In this case it was resorted to as a life saving procedure. The literature contains documented cases of intraoperative myomectomy converted to hysterectomy.8 This is considered to be the most significant short term risk with two major reasons being responsible. First, the inability to reconstruct the uterus following the removal of numerous fibroids and second, when there is significant blood loss.8 Both problems were seen in our patient. Current literature is rife with medical, surgical and radiological treatment options. Medical options (most of which are used as short term therapies due to the side effects associated with long term use) may be used alone or as peri-operative adjuncts. They include Gonadotropin releasing hormone agonists (GnRHa), ulipristal acetate, combined oral contraceptives, levonogestrel intra-uterine system (Mirena), antifibrinolytics (tranexamic acid), selective progesterone receptor modulators (SPRMs), mifepristone, and aromatase inhibitors.2, 9, 10

Minimally invasive techniques include uterine artery embolization (UAE), MRI guided high frequency focused ultrasonography, and ultrasound guided ablation.7, 9 One study looked at the impact of UAE versus myomectomy on fertility as both procedures are uterine sparing. The pregnancy rate after UAE was 50%, delivery rate 19% and miscarriage rate 53%, while these were 78%, 48% and 23% respectively after myomectomy.10 These statistics plus the technical expertise needed for UAE led to its exclusion as an option for our patient.

Surgery may take the form of myomectomy (hysteroscopic, laparoscopic, abdominal and robotic), and hysterectomy (vaginal, abdominal, and laparoscopic).11, 12, 13

For the patient managed multiple factors were considered, medical pretreatment with a GnRHa to reduce the overall uterine size and optimize her haemoglobin concentration prior to repeat myomectomy was a modality that was considered, unfortunately the cost implications and potential side effects were not acceptable to the patient.

The desire to preserve her fertility was a cardinal factor in the decision to have repeat myomectomy with its potential benefits, however when excessive blood loss and the increasing likelihood that postoperatively fertility would still be unlikely a hysterectomy was resorted to as a life saving measure with the added benefit of it being the definitive surgical treatment for her condition.

Conclusion

Uterine fibroids and their attendant symptoms can be quite distressing. There is the need to attempt to weigh the potential benefits against the risks/side effects of any treatment option. The need for the patient to be carried along in order to make an informed decision in conjunction with her healthcare provider is absolutely essential.

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Illustrations

Illustration 1

Multiple enucleated fibroids



Illustration 2

Uterus containing multiple fibroids

