

Abdominal myomectomy in a pre menopausal patient complicated by paralytic ileus: A case study in a Southern Nigerian Specialist Hospital.

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Abstract

Leiomyomas account for a large part of benign gynecologic surgery. There is a high incidence of leiomyomas in Tropical Africa and Abdominal myomectomy is preferred to Hysterectomy due to the societal and personal reproductive demand on pre menopausal women and the need for large family sizes in Sub Saharan Africa. Several approaches have been implemented, each with its benefits and drawbacks. The aim of this study is to present a case of a complicated post-operative course after leiomyoma surgery. We present on a 33-year-old (gravida 0 and para 0) patient who was operated on for multiple leiomyomas and presented with post operative paralytic ileus (Pseudo intestinal obstruction), necessitating immediate interventions. Leiomyomas represent a common indication for gynecologic surgery. The gynecologic surgeon needs to be familiar with the all the possible complications of myomectomy since early diagnosis of possible complications is of great importance.

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I. Introduction

Leiomyomas are the most common benign neoplasms of the uterus, with incidence as high as 70–80% in studies with sonographic or histologic examination.[1,2]

Risk factors associated with the development of leiomyomas include Negroid race, increasing age, early menarche, low parity, tamoxifen use, obesity, and, in some studies, a high-fat diet. Since their growth depends on gonadal steroids, their presence is diagnosed after menarche and they tend to regress after menopause.

Leiomyomas are usually multiple and the majority of them are found in the uterine corpus. Occasionally, they may be found in the fallopian tube or the round ligament, while about 5% of leiomyomas originate from the cervix. They are classified into subgroups by their relationship to the uterine layers, and the three most common types are intramural, subserous, and submucous.[3]

One-third of leiomyomas will become symptomatic, causing abnormal and excessive uterine bleeding, pelvic pain, pelvic pressure, bowel and bladder dysfunction, infertility, recurrent miscarriage, and abdominal protrusion. Often, the growth of the leiomyoma is disproportionate to its blood supply, leading to its degeneration, causing pelvic pain and localized peritoneal irritation.

The incidence of malignant degeneration of a leiomyoma to leiomyosarcoma is estimated between 0.3% and 0.7%; however, it still remains unclear whether leiomyomas degenerate to sarcomas or sarcomas arise de novo in myomatous uterine.

Rapid growth of a known leiomyoma after menopause is an alarming feature, suggestive of malignancy. [3]

Indications for treatment include persistent abnormal bleeding, iron deficiency anemia, bulk effects, and/or reproductive issues. Treatment of women with uterine leiomyomas should be individualized, based on symptomatology, the size and location of fibroids, age, and the needs and desires of the patient for the preservation of fertility or the uterus.

Symptomatic leiomyomas may be treated medically or surgically. Medical management includes the use of progestins and levonorgestrel intrauterine systems, gonadotropin-releasing hormone agonists (GnRH), GnRH antagonists, androgens (danazol), aromatase inhibitors (letrozole), estrogen receptor antagonists

(fulvestrant), selective estrogen receptor modulators (tamoxifen and raloxifene), and selective progesterone receptor modulators (mifepristone and ulipristal acetate).

Other conservative treatments include uterine artery embolization, focused energy delivery systems, magnetic resonance-guided focused ultrasound, and radiofrequency myolysis.

Surgical treatment includes myomectomy (hysteroscopic, laparoscopic, or open) and hysterectomy (reserved for women with no desire for fertility preservation or women with postmenopausal enlargement of an asymptomatic leiomyoma). [4-7]

Myomectomy is a surgical operation for the enucleation of uterine fibroids. This involves a laparotomy (an incision on the anterior abdominal wall) to open the abdomen. It involves closure of dead spaces where the leiomyomas were domiciled and stoppage of bleeding which occurs during the procedure. It also involves suturing of the serosa (peritoneal covering of the uterus) and the anterior abdominal wall in layers. [18, 19]

Several Steps are employed to ensure a safe myomectomy:

1. Haemoglobin estimation to ensure optimal haemoglobin levels >10g/dl. Patients with haemoglobin levels <6g/dl should receive at least two units of fresh whole blood prior to the surgery and two units of blood grouped and cross matched for the surgery.

2. An endometrial swab for microscopy, culture and sensitivity should be done then ensure optimal treatment of suspected infections involving the ovaries, fallopian tubes, and the uterus.

Treatment of infections resident in the pelvis will promote a clean pelvic peritoneum. [18, 19]

II. Case Report

Here, we present the case of a 33-year-old unmarried (gravida 0 and para 0) woman who presented at our department for the management of leiomyomas.

She presented with c/o of abdominal pain of 9/12, primary dysmenorrhea of 7/12, abdominal swelling of 6/12, umbilical swelling of 2/12.

The patient had an insignificant past medical history and a normal menstrual cycle.

On ultrasound examination, uterus was non gravid with a heterogeneous myometrial wall echo due to a large mass measuring 14.46cm × 12.24cm, endometrial layer measures 8.38cm with uniform echogenicity, it is anteriorly displaced by the uterine mass.

Presence of periumbilical hernia measuring 12.8cm containing pre peritoneal fat.

Other preoperative investigations;

Electrolyte, Urea and Creatinine - Creatinine 93.9mmol/l (50 - 115 mmol/l), Urea 8.2mmol/l (1.7 - 9.1mmol/l), Sodium 146 mmol/l (124 - 148mmol/l), Potassium 3.5mmol/l (3.6 - 5.5mmol/l), Chloride 106mmol/l (98 - 106mmol/l) Packed Cell Volume - 41% (40 - 54%)

After the aforementioned investigations and other appropriate pre-operative imagine and laboratory examinations, she underwent open enucleation of her leiomyomas, with no expected occurrences.

The procedure commenced via the abdomen opened through a right paramedian and right paraumbilical incisions, uterus delivered to the wound with the help of the myeloma screws.

A longitudinal midline fundal incision was made to remove the fibroids.

Dead spaces closed with chromic continuous non locking sutures, figure of eight sutures were used in some sections.

Serosa was closed using chromic 2 continuous interlocking and non locking sutures. Paraumbilical hernorrhaphy was done. Fascia was closed with Nylon 2. Skin was closed with Nylon 1.

The findings of the myomectomy was as follows; one large fibroid weighing 1.5kg located at the fundus and posterior aspects of the uterus. There was one medium sized fibroid and three small subserous myomas at the same location.

Estimated Blood Loss was 800mls.

Immediate post operative conditions were stable.

Patient opened bowel to flatus and faeces multiple times in third post op day (Pseudodiarrhea).

Patient presented with vomiting and progressive abdominal distension ten days post op.

During the following day, the patient developed a fever and due to the presence of air-fluid levels, a nasogastric tube was placed and was active for 6 days. The patient had developed a symptomatology of bowel obstruction, despite the presence of pseudodiarrhea.

Initial abdominal ultrasonography and abdominal radiography done showed grossly dilated bowel loops but no evidence of mechanical obstruction.

Later abdominal ultrasonography showed thickened bowel wall with slightly increased peristalsis, no evidence of bowel ischemia/obstruction an impression of gastroenteritis was made.

Patient was placed on NPO and treated with appropriate antibiotics.

There was obvious improvement to the patient's clinical state.

Histology report demonstrated leiomyomas

III. Discussion

Open enucleation of leiomyomas is an operation commonly performed. As with all operations performed through a laparotomy, the immediate post-operative course may be complicated with pain, fever, paralytic ileus, wound infection, anemia, hypoproteinemia, a chest infection, wound dehiscence, superficial or deep abscesses, anastomotic leaks, or evisceration [8].

A distinguishing feature is absent or hypoactive bowel sounds, in contrast to the high-pitched sound of obstruction. The differential diagnosis includes pseudo-obstruction (also known as Ogilvie syndrome) and mechanical bowel obstruction [9].

CT scanning with Gastrografin may have the best specificity and sensitivity for differentiating between post-operative ileus and other conditions. However, as demonstrated in similar studies, showed that even when implementing the appropriate diagnostic tool, reaching a definitive diagnosis can be challenging.

Implementing the standard investigation protocol is more difficult in sub saharan africa due to financial constraints and relatively scarcity of CT Scans, so substitutes like Abdominal Ultrasonography and Radiography are used to aid clinical diagnosis.

The Nasogastric tube placement was essential for intestinal blockage decongestion, the imaging investigations ruled out mechanical obstruction.

Conservation management for hypokalemia was also instituted.

The patient also presented with post operative gastroenteritis and was treated with the appropriate antibiotics.

The paralytic ileus resolved gradually after twenty days post the abdominal myomectomy.

IV. Conclusion

Leiomyomas represent a common cause for gynecologic surgery.

Myomectomy is relatively common in sub saharan Africa, due to the well documented high incidence amongst Negroid women, Leiomyomas are also a important cause of sub-fertility in our populace.

This case report demonstrates that medical and surgical complications may arise even after uneventful intraoperative conditions and that the gynecologic surgeon should be alert to symptoms that may warrant further investigations and/or treatment.

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