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A 42-Year-Old Para 0+0 Woman with Primary Infertility, Recurrent Fibroids, and Development of Enterocutaneous Fistula After Repeat Myomectomy

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Abstract **Case Report**

A case of a 42-year-old Nigerian woman, para 0+0 with secondary level of education presenting with primary infertility who underwent a repeat myomectomy for recurrent uterine fibroids. Ten days post-surgery, the patient developed an enterocutaneous fistula. At presentation, she had 5-years of infertility, abdominal swelling of 2 years, menorrhagia of 1year and previous myomectomy. She had a repeat myomectomy and 12 uterine fibroid masses of different sizes were removed. The largest measuring 16cm by 16cm weighing 800grams. She was discharged home 7th postoperative day. She was readmitted 10 days post-operative with leakage of faeces from the abdominal drain site, vomiting and fever. An abdominal ultrasound scan and a plain abdominal x-ray were carried out which revealed intestinal obstruction and she subsequently had an exploratory laparotomy and a about 10cm portion of the bowel was reset with end- to- end anastomosis. The enterocutaneous fistula was managed surgically. This report aims to provide insights into the diagnosis, management, and challenges of handling enterocutaneous fistula post-surgery in a patient with infertility and recurrent fibroids this detailed case report serves to guide clinicians in managing similar clinical scenarios

Keywords: Primary infertility, Myomectomy, Recurrent uterine fibroids, Enterocutaneous fistula.

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Introduction:

Uterine fibroids or leiomyomas are benign tumors that can affect women of reproductive age and are one of the most common causes of infertility in our region[1]. In Nigeria, uterine fibroids is a significant health issue with a prevalence rate as high as 20 to 30% in a hospital- based studies.[2] It is higher in the blacks especially among the infertile women[2]. Other predisposing factors to uterine fibroids include early age at menarche, familiar predisposition and overweight.[4] There are different sub-types depending on their locations in the uterus viz; subserous, intramural or sub-mucus[3,4]. Surgical intervention, such as myomectomy, is often required to manage symptoms or improve fertility outcomes[5,6]. Myomectomy can be performed through open laparotomy, laparoscopy or hysteroscopy[7]. However, complications such as enterocutaneous fistula

formation, though rare, can occur following such procedures. Other complications that may occur following myomectomy includes bleeding, adhesions, injuries to the bowel and ureters, intestinal obstruction and bacterial infections.[8,9,10,11,21] This case highlights the complications associated with repeat myomectomy in women with recurrent fibroids and provides a comprehensive management plan.

Case Report

She is 42 years Para 0+0 with secondary level of education. She presented with abdominal pain, menorrhagia, and infertility. Her last menstrual period was 15/08/2025 regular but heavy.

Medical History:

The patient has a history of infertility for 5 years with no pregnancy. She had a previous myomectomy 10 years ago for uterine fibroids. The patient has no known comorbidities or family history of gastrointestinal tract disorders.

Clinical Findings:

On examination, she was conscious, alert and well oriented, not pale and not febrile to touch. Her height was 154cm, weight 64 kilogram and body mass index of 26.9kg/m^2. Her pulse rate was 76 beats per minute and blood pressure 138/80mmHg. Abdominal examination shows an enlarged abdomen and moved with respiration, mild lower abdominal tenderness, uterine size was 26weeks. Bowel sounds were present, with no signs of obstruction.

Pelvic Examination revealed normal vulva and vagina. Digital examination shows an enlarged, irregularly shaped uterus consistent with multiple uterine fibroids.

Diagnostic Workup:

Laboratory investigations revealed haemoglobin concentration of 12g/dl, total white blood cell count of 4,800cells/mm^3, neutrophil count of 53%, lymphocytes count of 55%, eosinophil count 2%, serum electrolytes, urea, creatinine and liver function test were within normal limits. Abdominopelvic ultrasound Imaging done revealed multiple intra-mural, sub-mucus and sub-serosal fibroids while abdominopelvic CT-Scan showed no evidence of malignancy or lymph nodes enlargement or bowel loops malformation. Chest X-ray revealed no active lung disease.

Surgical Interventions:

She was counseled on the findings and she gave an informed consent for a repeat myomectomy with 2 units of blood grouped and cross-matched. The patient underwent a repeat myomectomy under regional anasthesia (spinal) to remove the recurrent fibroids and 12 uterine fibroid masses of different sizes were removed. The largest measuring 16cm by 16cm weighing 800grams. The procedure was complicated by significant adhesions from the previous surgery. The surgeon had to mobilize the bowel, which inadvertently caused injury to the small intestine, leading to the formation of an enterocutaneous fistula 10 days post operatively. An abdominal ultrasound scan and a plain abdominal x-ray were carried out post surgery revealed intestinal obstruction and she subsequently had an exploratory laparotomy and a about 10cm portion of the bowel was reset with end- to- end anastomosis. The enterocutaneous fistula was closed at the same time in this second surgery following the repeat myomectomy even though we earlier commenced conservative management for the fistula

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Figure 1: Leomyomas

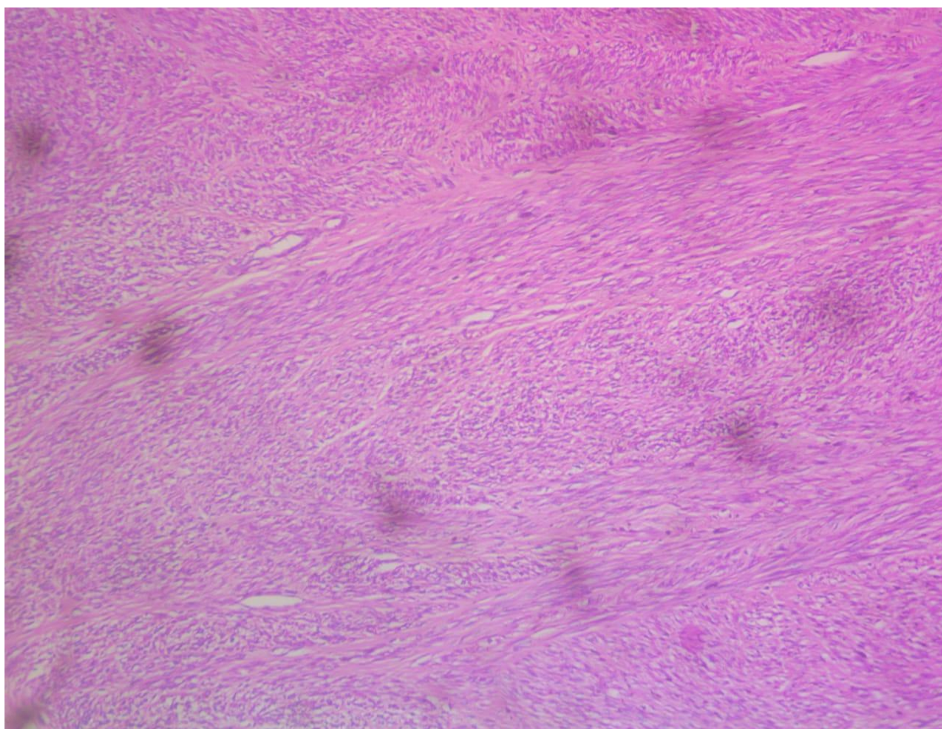

Figure 2: Histopathological image of the leomyoma

Postoperative Course:

The patient recovered well from surgery, with no signs of sepsis or immediate complications. On day 10 post-surgery, 3 days after discharge from the hospital, she presented with leakage of fecal matters from the left lateral side of abdominal wall (drain site). A diagnosis of enterocutaneous fistula was made confirmed by plain abdominal x-ray findings and Barium Enema. Endoscopy revealed an abnormal tract originating from the small bowel, leading to a fistulous opening on the abdominal wall. The patient was managed with intravenous Fluids to correct electrolyte imbalance and antibiotics to prevent infection. Total parenteral nutrition (TPN) was initiated. Conservative management with wound dressing and monitoring daily was commenced for the fistula care. A second surgical intervention was planned to close the fistula, which was deemed necessary after unsuccessful conservative management complicated by intestinal obstruction post repeat myomectomy.

Outcome:

The enterocutaneous fistula resolved after surgical intervention. The patient was discharged after 12 days of hospital care following second admission with no recurrence of the fistula. The fertility prognosis remained uncertain due to the extent of the uterine surgery and her age.

Discussion:

Enterocutaneous fistula formation after abdominal surgery, although rare, is a serious complication that requires prompt diagnosis and management.[11,12,13] The incidence is higher in patients with prior abdominal surgeries or extensive adhesions.[14] The management involves a multidisciplinary approach, including nutritional support, antibiotic therapy, and sometimes, surgical intervention.[15,16]

In the case of repeat myomectomy such as this case, the increased risk of adhesions and bowel injury was a significant concern.[17] The patient's advanced age also posed challenges in terms of fertility outcomes, as her ovarian reserve might have been diminished, and further fertility interventions were not pursued immediately due to delay recovery from the fistula.[18]

The patient's enterocutaneous fistula resolved with surgical management, but long-term follow-up is required to monitor for potential recurrence.[19,20,21,22] Given her age and the complexities of her surgery, her prognosis for future fertility remains uncertain.

Conclusion:

This case highlights the potential for rare but serious complications, such as enterocutaneous fistula, following myomectomy in patients with recurrent fibroids. Although most cases of enterocutaneous fistula can be managed conservatively, careful surgical technique, early recognition, and multidisciplinary management are key in minimizing morbidity. Further studies are required to better understand the risk factors for fistula formation in the context of myomectomy, especially in patients with previous uterine surgeries.

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