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Case Report

Pyomyoma in a Young Nulliparous Woman - A Case Report

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Pyomyoma (Acute Suppurative Leiomyoma) is a very rare complication of uterine leiomyoma and is associated with high mortality and morbidity if not promptly treated. We report a case of pyomyoma in young nulliparous woman due to ascending infection. Our patient presented with continuous abdominal pain and per vaginal bleeding. She had no previous workup up. Myomectomy was performed that revealed pyomyoma. Pyomyoma should be suspected in a patient with leiomyoma and unexplained abdominal pain and fever.
Key Words: Acute suppurative leiomyoma, leiomyoma, pyomyoma, polypectomy, myomectomy, abscess, polymicrobial infection.

Introduction

Leiomyoma of uterus are extremely common neoplasms. The overall incidence is between 4 to 11 percent. Clinically apparent lesions are less common in parous and postmenopausal women. Most of these are the result of secondary changes and are detectable in approximately 65% of cases. Pyomyoma also known as suppurative leiomyoma is a bacterial infection that occurs in uterine myoma. It is mainly caused by ascending infections and mortality associated with it without any interventions is 20 percent.[1] Around 16 cases have been reported worldwide after 1945 [2] and 7 were related to pregnancy. Although leiomyomas are common but presence of abscess in it is a rare event and can mimic leiomyosarcoma. Here, we report case of submucosal pyomyoma in a young woman.

Case Presentation

A 28-year-old female came to hospital with complaint of abdominal pain and continuous per vaginal bleeding for about six months. She was married for 6 years without any issues. On physical examination; abdomen was soft and non-tender. Per vaginal examination was unremarkable. Uterus contained a submucosal fibroid which was resected. We received in formalin a 5x3x3 cm yellowish white, firm, polypoidal mass with a stalk. The outer smooth surface was glistening. On cut section greyish white areas were seen. Representative sections were submitted.

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Microscopy reveled a benign neoplasm composed of bundles of smooth muscles arranged in whorled pattern separated by vascularized connective tissue. The nuclei were cigar shaped. Focal abscess was seen that comprised of necrotic debris infiltrated by neutrophils. No evidence of granuloma formation or malignancy identified

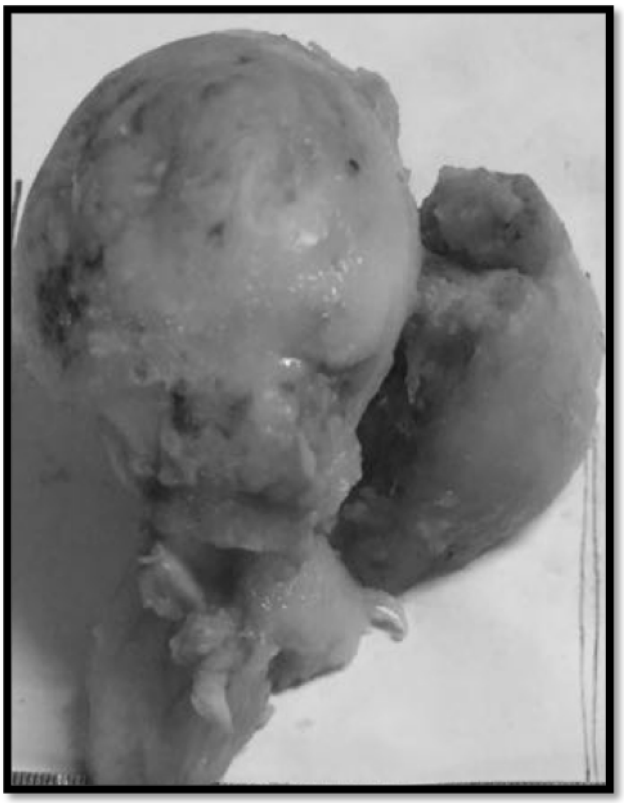

Figure 1: Acute Suppurative Leiomyoma (Pyomyoma), Gross appearane

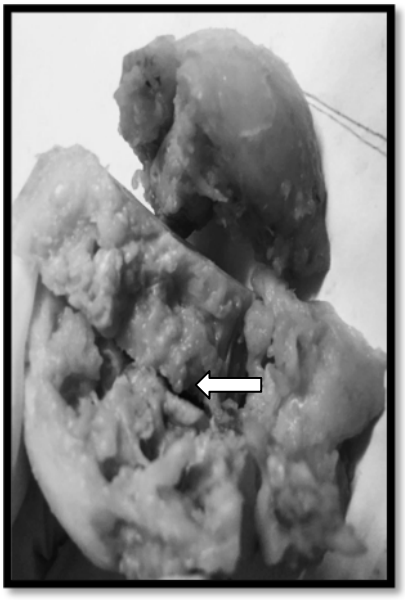

Figure 2: Acute Suppurative Leiomyoma (Pyomyoma), cut section, infected area is marked by arrow

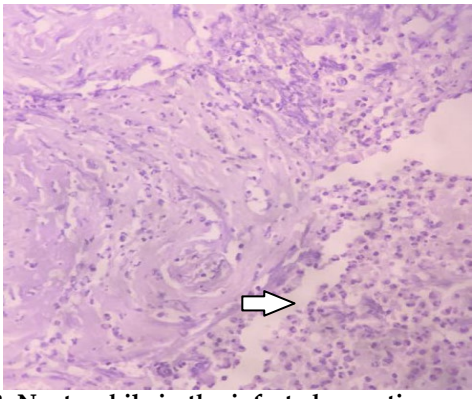

Figure 3: Neutrophils in the infected necrotic area (Arrow) (H&E X 100)

Discussion

Pyomyoma is a suppurative leiomyoma due to bacterial infections. Majority of the cases of pyomyoma have a relation to uterine instrumentation, gynecological surgery, cervical stenosis, pregnancy, abortion and uterine artery embolization. A t times leiomyoma may get infected by ascending infection either through hematogenous or lymphatic route.

A clinical trial of leiomyoma, sepsis without any other infection is the main clinical presentation of pyomyoma. The symptoms presented were Pyomyoma is polymicrobial infection caused by gram positive, gram negative and anaerobes.[3] The main organisms responsible are Staphylococal aureus, Streptococcal hemolyticus, clostridia species, Proteus and E.coli.

In January 2017 Rashmi Bagga et all reported a case of pyomyoma in a woman with post abortal fever in Oman.[4] After repeated lab tests and antibiotics treatment her fever persisted but on laparotomy pyomyoma was found.Her myomectomy was done which proved beneficial to the patient. In 2015, Kaler et al a case of postpartum pyomyoma in a patient with preterm premature rupture of membranes, chorioamnionitis, and postpartum hemorrhage which was then managed with intrauterine balloon tamponade.[5] In 2014 a similar case of pyomyoma was reported by Gupta et al in The Egyptian journal of Radiology and nuclear medicine. It was due to the ascending infection in a young woman.[6]

In the year 2013, a case of pyomyoma was reported in New York by Rossen ML due to uterine artery embolization.[7] In Southeast Asia, Sah SP reported a case of pyomyoma in post-menopausal woman in 2005. No case has been reported in Pakistan until now.[8]

The differential diagnosis of pyomyoma includes tubo ovarian abscess pyometra and malignancy. Ultrasound of pelvis, CT scan or MRI of the pelvis, Septic screens, complete blood count (CBC), blood cultures and high vaginal swabs are useful for the diagnosis of pyomyoma.

The definite treatment of pyomyoma is antibiotic therapy, myomectomy or hysterectomy. In our patient, myomectomy was done to preserve her fertility. Pyomyoma mostly occurs in submucosal fibroid due to its tenuous blood supply and more related to pregnancy but here our patient is nulliparous.

Mortality rate is 21 to 30 percent if not diagnosed at the right time [1] and can lead to peritonitis[9], renal cortical necrosis[10], endocarditis[11], pancreatitis[12] and death. Although pyomyomas are very rare, they should be suspected in leiomyomas with symptoms of abdominal pain, fever of unknown origin and unexplained source of infection.

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