

Case Report

A Sinister Twist to a Large Endometrioma: A Rare Case Report

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1. Introduction

Endometriosis affects roughly 10% (190 million) of reproductive age women and girls globally. It is a chronic disease associated with severe, life-impacting pain during periods, sexual intercourse, bowel movements and/or urination, chronic pelvic pain, abdominal bloating, nausea, fatigue, and sometimes depression, anxiety, and infertility. Access to early diagnosis and effective treatment of endometriosis is important, but is limited in many settings, including in low- and middle-income countries [1]. Ovarian endometriomas are found in up to 44% of women with endometriosis, and are significantly associated with the presence of pelvic deep infiltrating endometriosis, ovarian adhesions, and pouch of Douglas obliteration [2]. Cases of tubo-ovarian abscess (TOA) involving endometriomas have been reported in the literature, and women with revised American Society for Reproductive Medicine (ASRM) stages III-IV endometriosis have been found to have an increased occurrence of tubo-ovarian abscess [3]. A tubo-ovarian abscess associated with ovarian endometriosis (OE-TOA) is a potentially life-threatening condition, which is also related to other morbidities, such as infertility, chronic pelvic pain, and ectopic pregnancy [4, 5].

Case Report

We present a case of a 30 years old female who was a diagnosed case of primary infertility and grade IV endometriosis with large bilateral ovarian endometriomas. She had already undergone diagnostic laparoscopy 1 year back at some private clinic when the procedure was abandoned due to a frozen pelvis. She was being medically managed after that. Initially she was put on oral progesterone therapy for 6 months and then she also received 3 doses of injection Leuprolide.

She presented with chief complaints of high grade fever for 15 days and generalised pain in the whole abdomen. She had already received broad spectrum injectable antibiotics for the same but was not relieved of her symptoms. Vitals on presentation were pulse rate- 120 beats per min, blood pressure- 104/70 mm Hg, Temperature- 103oF and respiratory rate- 20/min. Her initial laboratory values demonstrated a hemoglobin of 6.9gm% and a TLC of 22.4 K/ul, with 73% neutrophils and 14% lymphocytes. Her renal and liver func-

tion tests were normal but the procalcitonin was raised to 181. Examination demonstrated soft abdomen with a tender ill defined mass corresponding to 18 weeks gravid uterus in the supra-pubic region. On per speculum examination cervix was anterior and same mass was felt causing bulge in all fornices, it was cystic, tender, 15*15 cm in size. Uterus could not be made out separately. On per rectal examination, rectal mucosa was free. Initial ultrasound at our centre demonstrated bilateral adenexal masses with septae and internal echoes, likely tubo- ovarian abscess. All the cultures were sent and she was put on empirical antibiotic therapy. She was taken up for an emergency laparotomy after stabilisation. Intra-operatively, bowel loops were found to be densely adherent to a large pus pocket which was opened after sharp-dissection and around 800cc of pus was drained. All the loculi were broken and the cavity was deroofed by gentle dissection. Bilateral tubes and ovaries could not be visualised separately due to dense adhesions.

Two intra-abdominal drains were left in situ after a thorough peritoneal lavage. The pus was then sent for culture sensitivity. Postoperatively the antibiotic therapy was continued and patient recovered uneventfully and was discharged on the 10th postoperative day.

2. Discussion

The development of TOA among women with endometriomas may be due to an increased susceptibility to infection, particularly in the altered immune environment seen with ectopic endometrial glands and stroma [6]. It has been conjectured that endometriomas serve as medium for bacterial growth and are susceptible to bacterial invasion through either direct infection (penetration or surgery), ascending route through the vagina or cervix, hematogenous spread, lymphatic spread, or direct spread from colonic wall [7]. Previous surgical procedures involving the pelvic organs have been found to increase the risk of TOA formation in patients with endometriosis (as in our case) [2]. Management of large endometriomas typically involves laparoscopic surgical removal. While there is no established standard of care for infected endometriomas, it has been observed that timely interventions can help in early recovery and prevent mis-

haps. In our case the primary goal of treatment was not to remove the endometrioma but to treat the florid infection, which was not responding to antibiotics. It is at the discretion of the treating gynaecologist when to intervene, however we suggest that timely intervention aids in early recovery and may improve the future fertility outcome by preventing the tissue damage to ovarian parenchyma secondary to the abscess. The aim of surgical management of tubo-ovarian abscesses is the laparoscopic drainage, while deep endometriosis resection should be delayed. Postoperative clinical and biological monitoring is particularly important in these cases due to risk of early recurrence in the event of insufficient drainage of the abscess. Blocking ovulation is essential because stopping microhaemorrhages inside endometriosis implants is essential for reducing the inflammatory state of the peritoneum and regression of the implants themselves [8, 9]. Laparoconversion must remain exceptional during emergency surgery, because opening the abdominal cavity leads, in this inflammatory context, to a high rate of postoperative adhesions, which will make remote curative surgery even more difficult. Additionally, postoperative adhesions will add to the adhesions induced by endometriosis which will make the laparoscopic approach and access to the pelvis during the curative intervention problematic [10]. However in our case the open surgery is justified keeping in mind the history of an abandoned laparoscopic surgery in our patient previously in view of frozen pelvis.

3. Conclusion

The management of stage 3 & 4 endometriosis in infertile patients has always been a subject of debate with few promoting conservative management while others rooting for surgical removal [11]. Tubo-ovarian abscess in the setting of large endometriomas is a severe complication, which can have a devastating effect on the fertility prospects of a woman.

The authors are of the opinion that sexually active women with large endometriomas must undergo timely surgical removal to prevent the occurrence of this catastrophic complication and preserve future fertility potential.

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