The challenge of diagnosing tubo-ovarian abscess and the necessity for aggressive management

To the Editor,

We are writing to address a critical issue in the management of tubo-ovarian abscesses (TOA), highlighted by two recent cases treated at our facilities. These cases illustrate the diagnostic difficulties and the urgent need for aggressive management to avoid potentially fatal complications associated with TOA.

TOA is a severe complication of pelvic inflammatory disease (PID). However, the term PID can be confusing, as it encompasses a spectrum of conditions ranging from milder presentations to more severe forms. To avoid misunderstandings and underdiagnosis, it would be prudent to use more specific terms, such as endometritis, salpingitis, tubal abscess, and TOA. This distinction is important because TOA itself poses significant life-threatening risks. Moreover, the most important consideration in cases of PID is to exclude the possibility of a TOA, given its severity and the necessity for hospitalization. An undiagnosed TOA presents a high risk of rupture and necessitates emergency surgery, highlighting the need for accurate and timely diagnosis (1).

In stable patients with few symptoms, a medical approach may be considered, with prompt and "aggressive" initiation of broad-spectrum antibiotic therapy within the "golden hour". In cases of large abscesses (≥6 cm) or lack of clinical response within 48-72 hours, surgical treatment is mandatory to reduce the risk of TOA rupture.

While ultrasound can be helpful, it is often inadequate for diagnosing TOA due to its limitations in visualizing the ovary alongside an abscessed tube, making diagnosis challenging (2).

In our first case, a 44-year-old woman presented with abdominal pain and fever. Her personal history was unremarkable, and she used an intrauterine device (IUD) for contraception. Initial transvaginal and transabdominal ultrasound findings were inconclusive, showing only a "functional cyst" and minimal free fluid. Forty-eight hours later, her condition worsened, and a computed tomography (CT) scan ultimately revealed a left adnexal abscess. The patient required urgent laparoscopic surgery, during which a left adnexectomy and IUD removal were performed. Postoperative complications included pleural effusion and pulmonary empyema, highlighting the severe and rapidly evolving nature of TOA (3). After intensive care unit hospitalization and broad-spectrum antibiotics, the patient recovered.

Our second case involved a 36-year-old, obese woman with a history of IUD use, who presented with fever and pelvic pain. Initial evaluations, including ultrasound, did not yield conclusive findings. However, worsening symptoms and fever led to a CT scan three days later, which confirmed a TOA. Despite aggressive antibiotic treatment, the patient's clinical condition worsened, with coincident development of lobar pneumonia, illustrating the necessity of prompt and comprehensive treatment for TOA (4). The patient underwent laparotomy with removal of the left TOA, and of the IUD simultaneously. Hospitalization in the intensive care unit was required, where antibiotic therapy was continued, and the clinical condition improved.

These cases emphasize the importance of a systematic diagnostic approach. Detailed patient history, clinical examination, and advanced imaging, such as CT and pre-surgical chest X-rays, are critical for accurate diagnosis and management of TOA (5). The rapid progression of TOA necessitates early and aggressive treatment with broad-spectrum antibiotics targeting anaerobes, including

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Bacteroides fragilis, and timely surgical intervention when indicated.

A multidisciplinary approach in the management of TOA is mandatory. Prior to progression to septic shock, collaboration between the gynecologist, microbiologist, and infectious disease specialist is essential for enabling conservative medical management. If septic shock develops, the support of anesthesiologists and intensive care specialists is necessary to manage the severe clinical condition of the patients.

The diagnosis and management of TOA requires a high level of clinical suspicion and a multi-faceted approach. Clinicians should be vigilant for signs of TOA, use advanced imaging techniques, and be prepared for aggressive treatment strategies to address this serious condition effectively.

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