

Tuba-ovarian abscess in a sexually inactive teenager with Down syndrome: Case report and brief review of literature

Down sendromlu cinsel olarak aktif olmayan bir gençte tubo-ovaryan apse: Olgu sunumu ve literatürün kısa bir gözden geçirilmesi

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Abstract

Tuba-ovarian abscess, a complication of pelvic inflammatory disease commonly seen in sexually active women, is very rarely encountered in sexually inactive ones. It commonly presents with non-specific symptoms like abdominal pain and fever and/or less commonly with vaginal discharge so it may be challenging for the emergency physician to make the diagnosis promptly. Point-of-care ultrasound may help physician to rapidly diagnose or exclude tuba-ovarian abscess. It can be treated medically (with broad-spectrum antibiotic therapy) or surgically (by drainage or removal of the lesion). If pelvic inflammatory disease and tuba-ovarian abscess are not included in the differential diagnosis of patients admitted to emergency department due to abdominal pain because the patient is not sexually active, the patient may suffer from some serious complications due to delayed diagnosis. Emergency physicians should be vigilant due to the possibility of sexual abuse while treating a sexually inactive patient with tuba-ovarian abscess. The first case of tuba-ovarian abscess, thought to be related to poor personal hygiene, in a child with Down syndrome was presented together with a short review of the literature.

Keywords: Down syndrome, Point-of-care ultrasound, Poor personal hygiene, Tubo-ovarian abscess

Öz

Tubo-ovaryan apse, cinsel olarak aktif olan kadınlarda pelvik inflamatuvar hastalık komplikasyonu olarak sık görülürken, cinsel olarak aktif olmayanlarda çok nadir görülür. Hastalık genellikle karın ağrısı ve ateş gibi spesifik olmayan semptomlarla ve / veya daha az sıklıkla vajinal akıntı ile kendini gösterir, bu nedenle acil hekiminin erken tanı koyması zor olabilir. Hekimin tubo-ovaryan apseyi hızlı bir şekilde teşhis etmesine veya dışlamasına "point-of-care ultrasound" sistemi yani taşınabilir ultrason cihazı ile yatak başında hastanın ultrasonografisini yapması yardımcı olur. Tıbbi olarak (geniş spektrumlu antibiyotik tedavisi ile) veya cerrahi olarak (lezyonun drenaj veya çıkarılmasıyla) tedavi edilir. Karın ağrısı nedeniyle acil servise başvuran hastaların ayırıcı tanısında cinsel olarak aktif olmadıkları için pelvik inflamatuvar hastalık ve tubo-ovaryan apse yer almıyorsa, gecikmeli tanıya bağlı ciddi komplikasyonlar görülebilir. Acil hekimleri cinsel olarak aktif olmayan hastada tubo-ovaryan apse tanısını koyup tedavi ederken cinsel istismar yönünden uyanık olmalıdırlar. Down sendromu olan bir çocukta, zayıf kişisel hijyen ile ilişkili olduğu düşünülen ilk tubo-ovaryan apse literatürün kısa bir gözden geçirmesiyle birlikte sunuldu.

Anahtar kelimeler: Down sendromu, Point-of-care ultrasound, Kötü kişisel hijyen, Tubo-ovaryan apse

Introduction

Tuba-ovarian abscess (TOA) as a complication of pelvic inflammatory disease is commonly seen in sexually active women, and is very rarely encountered in sexually inactive ones. It commonly presents with non-specific symptoms like abdominal pain and fever and/or less commonly with vaginal discharge so it may be challenging for the emergency physician to make the diagnosis promptly [1-3]. The first case of tuba-ovarian abscess, thought to be related to poor personal hygiene, in a child with Down syndrome was presented together with a short review of the literature.

Case presentation

A 17-year-old female with Down syndrome was admitted to the emergency department due to recurrent abdominal pain lasting for more than one month. On physical examination, a mass lesion was felt on palpation in the left lower quadrant. Point-of-care ultrasonography performed by the emergency physician revealed the mass was a cystic lesion. Results of the patient's laboratory tests were as follows: White blood cell count (WBC), 21000/mm³; neutrophil percent, 82.6% and C-reactive protein (CRP) level, 26.76 mg/dL. Intravenous contrast-enhanced abdominal computed tomography scan (CT), performed for differential diagnosis of the lesion, showed the cystic lesion with the dimensions of ~7x6x5 cm, filled with dense material, including multiple septations within in the left ovarian region (Figure 1). The lesion was excised surgically. Histological examination of the lesion confirmed the diagnosis of TOA. No complications developed later, and the patient was discharged after 6 days of inpatient follow-up. Written consent was received from the parent of the patient.

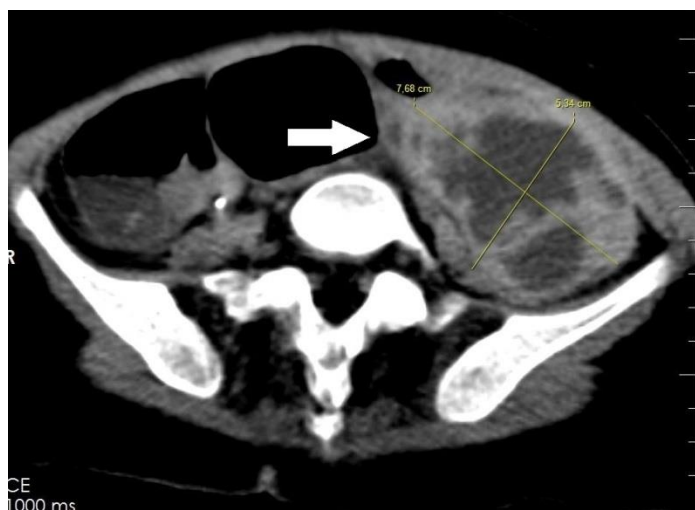


Figure 1: Intravenous contrast-enhanced abdominal computed tomography showing a cystic lesion with the dimensions of ~7x6x5 cm filled with a dense material, including multiple septations within in the left ovarian region (arrow).

Discussion

TOA is generally seen as a complication of pelvic inflammatory disease (PID) [1]. PID occurs when infectious agents spread upwards from the lower genitourinary tract and reach adjacent structures such as endometrium, fallopian tubes, ovaries and pelvic peritoneum. TOA is commonly encountered in sexually active women with PID; it is very rarely seen in sexually inactive ones [2,3]. Its clinical presentation is usually non-specific [4]. Typical signs and symptoms include abdominal pain, fever and less commonly vaginal discharge. It is a real emergency due to risk of development of serious complications including tubal occlusion, infertility, ectopic pregnancy and pelvic adhesions leading to chronic pelvic pain [2,4]. It can be treated either medically (with antimicrobial therapy) or surgically (by drainage or excision of the lesion) [4]. A teenager with Down Syndrome diagnosed with TOA was presented.

TOA occurs in 3% of patients with PID as a result of progression of the disease, and 71% of TOA cases are seen during the 3rd and 4th decades [5]. Although TOA is not common in sexually inactive girls it may rarely occur related to

poor personal hygiene or dissemination of infectious agents through systemic blood circulation in patients with intra-abdominal disorders (e.g. intestinal injury, obstruction of the visceral organs, blood flow abnormalities, peritonitis secondary to systemic diseases, intra-abdominal operations) [3,4,6-16]. Ascending regurgitation of urine into the vagina increases the risk of PID and TOA [14].

TOA has been rarely reported in sexually inactive patients. One of the reported cases was a 15-year-old girl with mental retardation [16]. The present case resembles that patient since she has mental retardation, too, due to having Down syndrome. Mental retardation and Down syndrome may increase the predisposition to PID and TOA by impairing personal hygiene. Besides, patients with Down syndrome have relatively higher predisposition to infections because cellular and humoral immunity are generally defective in these patients. TOA may be the primary manifestation of Crohn's disease. It may occur related to obesity, constipation, recurrent urinary tract infections or poor personal hygiene or a combination of these factors [5]. It was also reported in a patient with Henoch-Schonlein vasculitis [6].

The diagnosis of TOA in sexually inactive patients especially in those in the pediatric age group may be challenging because the physician cannot think of -due to extremely lower prevalence in these groups and non-specific presentation of the disease- the patient may have the disease [4]. Delayed diagnosis of the disease and development of complications due to misconception the disease is seen only in sexually active women negatively affect the patient's prognosis and increase the burden on social security systems. PID and TOA should be considered every time a female patient with abdominal pain is encountered in the emergency department regardless of the patient's sexual activity status especially if the patient has one or more of the predisposing factors mentioned above [3,4,6-15]. Sexual abuse should also be considered and questioned in the case of the diagnosis of a child with TOA. No suspicious findings were detected in the present case.

Ultrasound evaluation of the patient by emergency physician is useful in rapid diagnosis of TOA. Because the present case had recurrent abdominal pain in the left lower quadrant, and a mass lesion was found in the same region the diagnosis of acute appendicitis was virtually excluded. Emergency physicians should act rapidly while dealing with TOA or other intra-pelvic disorders which may be needed to be treated surgically, otherwise life-threatening complications may develop, or the patient may lose fertility as a result of complications.

In conclusion, PID and TOA should be included in the differential diagnosis in patients admitting with abdominal pain even if the patient is not sexually active. Evaluation of the patient with point-of-care ultrasound by the emergency physician will decrease the elapsed time till the diagnosis is confirmed. Finally, child abuse should not be missed when a patient in the pediatric age group was diagnosed with TOA.

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