Cilt 2 (2021) Sayı 1 28-31

# Bir Olgu Sunumu: Radikal Retropubik Prostatektomi Hikayesi Olan Bir Hastada İntraabdominal Gossipiboma

Gökhan YILMAZ  $^1$  Melike Ruşen METİN  $^2$  İlker PALA  $^1$  Tuba MERT  $^1$  Yusuf TANRIKULU  $^3$ 

#### Özet

Giriş: Gossypiboma, literatürde Textiloma veya yabancı cisim (Retained Foreign Object) olarak tanımlanan nadir bir cerrahi komplikasyondur. Çok çeşitli klinik bulgular ile prezente olabilmekle birlikte sıklıkla apse gelişimine neden olabilmektedir. Bu vaka ile amacımız gossipiboma nedeni ile ameliyat edilen bir hastanın görüntüleme bulgularını tespit etmek ve değerlendirmektir.

Vaka sunumu: Bir yıl önce adenokarsinom tanısı ile retropubik radikal prostatektomi geçiren 70 yaşında erkek hasta; hastanemize, bilateral alt kadran ağrısı, sol kasık bölgesinde şişlik ve idrar yapmada güçlük şikayetleri ile başvurdu. Ultrasonografi ve Çok Boyutlu Bilgisayarlı Tomografi (ÇKBT) incelemeleri yapıldı. Bulgular gossipiboma olarak yorumlandı ve operasyonla tanı doğrulandı. Sonuç: İstatistiksel olarak önemli üç risk faktörü acil cerrahi, planlanmamış değişiklik ve vücut kitle indeksidir. Bu risk faktörlerinden en az birinin ve ameliyat sonrası şikayetlerin varlığında; ameliyat sonrası görüntüleme kullanılmalı ve gossipiboma ayırıcı tanı olarak düşünülmelidir.

#### Anahtar Kelimeler

Gossypiboma Ultrason Bilgisayarlı Tomografi

#### Makale Hakkında

Gönderim Tarihi: 23.02.2021 Kabul Tarihi: 04.03.2021 E-Yayın Tarihi: 24.04.2021

## A Case Report: Intra-abdominal Gossypiboma in a Patient with Radical Retropubic Prostatectomy History

## Abstract Keywords

Introduction: Gossypiboma is a rare surgical complication defined as Textiloma or Retained Foreign Object (RFO) in the literature and can appear with no clinic or can cause symptoms as a result of the abcess. With this case, our aim is to identify the imaging findings of gossypiboma in a patient.

Case report: A 70-year-old male patient who underwent retropubic radical prostatectomy a year ago with diagnose of adenocarcinoma; admitted to the urology outpatient clinic of our hospital with bilateral lower quadrant pain, swelling in the left inguinal region and difficulty in urination. Ultrasonography and Multidimensional Computed Tomography (MDCT) examinations were performed

Conclusion: The three statistically significant risk factors are emergency surgery, unplanned change and body mass index. In the presence of at least one of these risk factors and complaints after the surgery; post operative imaging should be used and gossypiboma should be considered as a differential diagnosis.

Gossypiboma Ultrasound MDCT

#### **Article Info**

Received: 23.02.2021 Accepted: 04.03.2021 Online Published: 24.04.2021

<sup>&</sup>lt;sup>1</sup> Medipol University Faculty of Medicine, Department of General Surgery, Istanbul, Turkey, <a href="https://drgokhanylmz@gmail.com">drgokhanylmz@gmail.com</a>

<sup>&</sup>lt;sup>2</sup> Medipol University Faculty of Medicine, Department of Radiology, Istanbul, Turkey, melikemetinrusen@gmail.com

<sup>&</sup>lt;sup>1</sup> Medipol University Faculty of Medicine, Department of General Surgery, Istanbul, Turkey, dr.ilkerpala@gmail.com

<sup>&</sup>lt;sup>1</sup> Medipol University Faculty of Medicine, Department of General Surgery, Istanbul, Turkey, dr.tgulcelik@gmail.com

<sup>&</sup>lt;sup>3</sup> KTO Karatay University Faculty of Medicine, Department of General Surgery, Konya, Turkey <u>drtanrikulu@hotmail.com</u>

#### Introduction

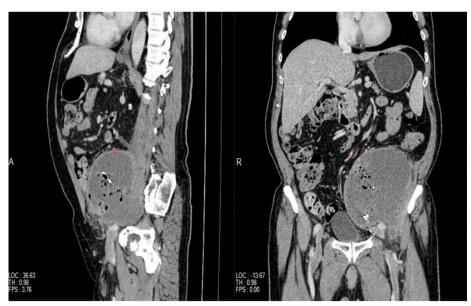
ODDs, which are located at the anterior part of optic nerve lamina, bulging forward, composed of accumulation of hyalin and calcified material, cause indefinite appearence of optic disc edge. Migration of retinal pigment epithelial cells and hyalin degeneration of neuro-glial cells are responsible for the formation of ODD. Disorders of axoplasmic transmission of retinal nerve fibers and axonal Ca metabolism are also influential on ODD pathogenesis (Lam, Morais ve Pasol, 2008; Atmaca ve Yilmaz, 2003; Kanski, 2011). In electron microscopy, standalone and/or clusters of calcified axonal mitochondrias on lamina choroidalis were observed. Calcified axonal mitochondrias are the main sources of ODD (Ford, Biller ve Weaver, 1983; Mom, 1981).

The incidence of ODD is 0.3 - 0.4% and 27% of the cases are unilateral1. Genetic transmission is present, heritance is irregular and generally it's seen in caucasians (Atmaca ve Yilmaz, 2003; Kanski, 2011). In early childhood period, it is buried in OD plane, therefore it's difficult to determine it in ophthalmoscopical examination. In early adolescence, it is easier to diagnose ODD. Buried ODDs are most confused with papilledema. Rarely, they are diagnosed with computerized tomography (CT) incidentally (Atmaca ve Yilmaz, 2003; Mom, 1981).

### **Case Report**

A 70-year-old male patient who underwent retropubic radical prostatectomy a year ago with diagnose of adenocarcinoma; admitted to the urology outpatient clinic of our hospital with bilateral lower quadrant pain, swelling in the left inguinal region and difficulty in urination. Ultrasonography and Multidimensional Computed Tomography (MDCT) examinations were performed.

There was a loculated fluid collection in the ultrasound with dense content in the left inguinal region and an echogenic structure in the lumen folded onto each other that may be compatible with catheter. In the abdominal computed tomography there was a thick walled, air containing, approximately  $164 \times 142 \text{ mm}$  loculated fluid collection anteromedial neighborly to the left iliopsoas muscle , extending to the left femoral canal, and a linear density in the lumen compatible with catheter (Figure.1). The findings were interpreted as gossypiboma and the diagnosis was confirmed with the operation.



**Figure 1.** Thick walled, air containing 164 x 142 mm loculated fluid collection anteromedial neighborly to the left iliopsoas muscle, extending to the left femoral canal, and a linear density in the lümen compatible with catheter.

#### **Discussion**

Gossypiboma or retained foreign body should be in the differential diagnosis of any postoperative patient who presents with pain, infection, or palpable mass (Çengel et al, 2014). It is most common after abdominal surgery but also can be seen after cardiovascular, gynecologic, orthopedic or urological procedures. The most common localization is the abdominal cavity (Sözütek et al, 2010).

Gossypiboma causes two types of responses which are exudative response that usually occurs early in the postoperative period and aseptic fibrous that can have adhesions and granuloma formation. (Radiopedia) In exudative response patient can admit to the hospital with fever and abdominal pain but in aseptic response the onset of the symptoms as variable and it can be detected incidentally by imaging methods.

As an adjunct to diagnosis; radiography, ultrasonography (US), computed tomography (CT) and magnetic resonance imaging (MRI) can be used. In the ultrasound a well-circumscribed mass with hypoechoic edges and hyperechoic center, showing acoustic shadowing is a valuable finding for Gossypiboma (Aminian, 2008). In the radiography; the presence of radiopaque marker of the forgotten material, whirl like sign or calcifications of the sponge can be monitored (das Chagas et al, 2012). In CT; tortuous hypodense and hyperdense areas in the thick or thin-walled mass is typical for the lesion (Sözütek, 2010). There can be air bubbles in the spongiyoform image (equivalent to the whirl-like sign in the radiography) and sponge calcifications in the CT (Inci et al, 2012). After the contrast infussion the capsule can show enhancement. In the MRI images; different intensities depending on the nature of the content, but generally hypointense on T1, spiral streaks at the center of a hypointense mass on T2, post-contrast-enhancing capsule and in some cases notched view at the inside wall of the lesion can be detected (Kim et al, 2007).

The radiologic appearance can be confused with post-op collection, abscesses, hematomas, tumors and intra-abdominal hydatid cyst. Gossypiboma has to be considered in post operative patients. Definitive diagnosis is proven by histopathology.

Abscess, fistula, bowel obstruction and adhesion of the adjacent organs can be seen as a complication in abdominal gossypibomas. Although the incidence of gossypiboma is rare, it is important with the mortality rate up to 10% to 18% (das Chagas et al, 2012).

### Conclusion

Gossypiboma is a condition that can cause problems for both patients and surgeons. The exact number of cases is not known because of the legal problems but it is reported as 1/3000-5000. The three statistically significant risk factors are emergency surgery, unplanned change and body mass index (Gawande et al, 2012). In the presence of at least one of these risk factors and complaints after the surgery; post operative imaging should be used and gossypiboma should be considered as a differential diagnosis.

## References

Çengel F, Bulakçı M, Özbakır B, Kırış A, Radiological Signs of Intra-abdominal Gossypiboma, The Medical Bulletin of Haseki 2014; 52: 47-9

Kim CK, Park BK, Ha H. Gossypiboma in abdomen and pelvis: MRI findings in four patients. AJR Am J Roentgenol. 2007;189 (4): 814-7

Sözütek A, Karabuğa T, Bozdağ AD, Derici H Asymptomatic gossypiboma mimicking a liver mass Ulusal Cerrahi Dergisi 2010; 26(4): 225-228

Aminian A, Gossypiboma: a case report, Cases J. 2008; 1: 220. Published online 2008 Oct

das Chagas Neto FA; Agnollitto PM; Mauad FM; Barreto ARF; Muglia VF; Junior JE, Imaging findings of abdominal gossypiboma, Radiol Bras vol. 45 no. 1 São Paulo Jan. / Feb. 2012

İnci MF, Özkan F, Okumuş M, Köylü A, Yüksel M, ;A very rare cause of acute abdomen: Gossypiboma Dicle Tıp Dergisi / 2012; 39 (3): 445-448

Gawande AA, Studdert DM, Orav EJ, Brennan TA, Zinner MJ. Risk factors for retained instruments and sponges after surgery. N Engl J Med. 2003;348:229–235.