

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/radcr

Case Report

Dropped gallstones mimicking peritoneal metastasis: A case report

Sarah Garaud, Alexandre Stolz*

Department of radiology, Hôpital neuchâtelois, Rue de la Maladière 45, 2000 Neuchâtel, Switzerland

ARTICLE INFO

Article history:

Received 15 March 2018

Revised 25 May 2018

Accepted 26 May 2018

Keywords:

Dropped gallstones

Calcified peritoneal nodular pattern

Computed tomography

Cholecystectomy

ABSTRACT

Dropped gallstones is a rare complication after a cholecystectomy. Computed tomography is the modality of choice for diagnosis. Dropped gallstones can be a fortuitous discovery in an asymptomatic patient but it is usually revealed when a complication occurs, most commonly through an abscess. Our case presents a dropped gallstone found during a routine check-up in a patient with a history of small bowel cancer. We will discuss differential diagnosis with others calcified peritoneal nodular patterns, particularly peritoneal carcinomatosis. We will recall the multimodality imaging findings of dropped gallstone and, based on literature, we will review the different sources of calcified peritoneal nodular pattern. The treatment of gallstone drop consequences depends on the clinical aspect.

© 2018 The Authors. Published by Elsevier Inc. on behalf of University of Washington.

This is an open access article under the CC BY-NC-ND license.

<http://creativecommons.org/licenses/by-nc-nd/4.0/>

Introduction

Dropped gallstones is the spillage of stones that can occur during a gallbladder perforation in a cholecystectomy. In most situations, gallstones are not symptomatic, even years after their occurrence. Diagnosis is easy using computed tomography (CT), but sometimes, as in the herein case, in a context of cancer follow-up, the diagnostic is difficult and other—benign and malignant—peritoneal nodules with calcification come under discussion.

Case report

An 84-year-old man consulted our radiology department for his annual CT follow-up for a small bowel gastrointestinal

stromal tumor in complete remission. The patient did not complain of any abdominal pain. He reported a laparoscopic cholecystectomy (LCC) 2 months previously, after an acute cholecystitis with an uneventful postoperative recovery.

Abdominal contrast-enhanced CT showed a centimetric nodule in the anterior compartment of the right subhepatic space with target enhancement and a calcified center, encompassed by fat infiltration (Fig. 1), mimicking an omental implant of carcinomatosis. The small bowel was normal showing no signs of cancer recurrence.

A unique low-intensity nodule, with a calcified center, similar in appearance to a cholelithiasis inside the gallbladder seen on a previous CT (Fig. 2), in a context of recent LCC, oriented us toward the diagnosis of dropped gallstones surrounded by an inflammatory reaction.

The patient was referred for a surgery consultation but the clinical exam was normal. Due to the patient's absence of pain,

* Corresponding author.

E-mail addresses: sarah.garaud@h-ne.ch (S. Garaud), alexandre.stolz@h-ne.ch (A. Stolz).<https://doi.org/10.1016/j.radcr.2018.05.017>1930-0433/© 2018 The Authors. Published by Elsevier Inc. on behalf of University of Washington. This is an open access article under the CC BY-NC-ND license. (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)



(a)



(b)

Fig. 1 – Portal venous phase 5 mm axial (a) and 10 mm coronal (b) abdominal computed tomography images show a 1 cm nodule with target enhancement and with low-intensity and calcified center (arrow), associated with fat infiltration around (*), hinting at an inflammatory reaction due to a stone spillage in the peritoneal cavity following the laparoscopic cholecystectomy.

surgery was not performed. An annual CT follow-up was suggested.

Discussion

LCC is associated with gallstones spillage in 5%-40% of procedures [1]. Mostly, patients stay asymptomatic, but in 0.08%-0.3% it results in clinical consequences [2], with complications such as abscesses and fistulas [3]. These consequences are due to stones leading to a low-noise inflammatory reaction, resulting in granulomas. In certain cases, this inflammation can persist and erode tissues adjacent to the stone, which can migrate to different areas like into the retroperitoneum, in the pelvis or above the diaphragm [4,5]. Symptoms can occur on average a few months after an LCC but also years after such an intervention [3].

Typically, dropped gallstones appear on a CT as high-attenuation calcified, but stones composed of cholesterol or low calcium content may not be seen. On a magnetic resonance imaging, stones can be difficult to recognize. On T1-weighted sequences, pigment gallstones were generally hypersignal while cholesterol gallstones were generally hypointense [6]. On T2-weighted images, a gallstone drop can also be hypointense even without enhancement after injection of gadolinium-based contrast agents [3,6]. On an ultrasound, they are presented as hyperechoic foci mobiles, with posterior acoustic shadowing [7].

Intra-abdominal calcification morphology is classified in laminar, sheetlike, or nodular. Laminar calcifications exist in various situations such as long-time peritoneal dialysis. Here, we discuss sources of calcified peritoneal nodular pattern (CPNP) those including dropped gallstones (Table 1).

Unique calcified peritoneal nodular pattern

In the literature, single CPNP is uncommon. Maatouk et al. reported that retained appendicolith can be seen at ultrasound or CT in different sites including the pelvis, gluteal region,

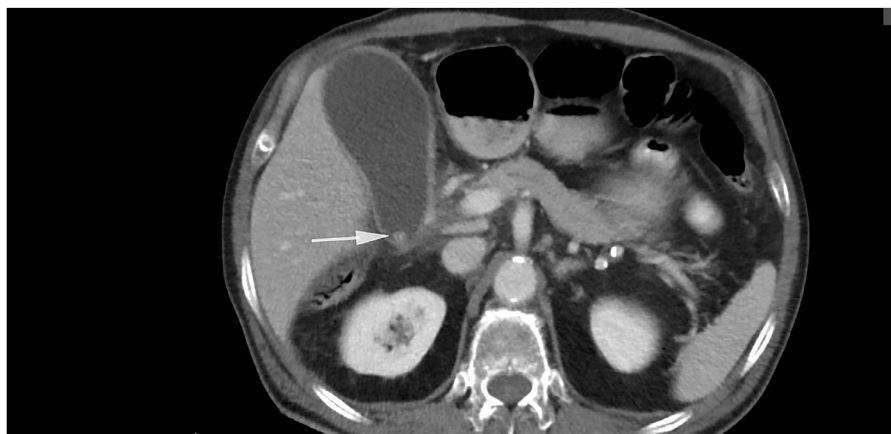


Fig. 2 – Prior contrast-enhanced computed tomography of the patient, several months before laparoscopic cholecystectomy, shows the same stone (arrow) in the gallbladder.

Download English Version:

<https://daneshyari.com/en/article/8824975>

Download Persian Version:

<https://daneshyari.com/article/8824975>

[Daneshyari.com](https://daneshyari.com)