Case report

Empyema due to spilled stones during laparoscopic cholecystectomy

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Abstract

We describe a patient who suffered right pleuritic chest pain and an exudative pleural effusion, leading to empyema formation. Thoracotomy revealed this to be due to a subphrenic abscess around spilled gall stones. © 1998 Elsevier Science B.V.

Keywords: Cholecystectomy; Laparoscopic; Empyema; Gall stones

1. Introduction

Empyema is a rare but documented complication of laparoscopic cholecystectomy. It is usually attributed to spread from a subphrenic collection around lost gallstones [1,2,4]. It has been suggested that spilled stones are of no consequence [3], but we present a case where an empyema due to spilled stones resulted in significant morbidity.

2. Case report

A 73-year old female underwent laparoscopic cholecystectomy for symptomatic gall stone disease and initially recovered well. She presented 5 weeks later complaining of right pleuritic chest pain and dyspnoea. Examination revealed decreased air entry at the right base. A chest X-Ray showed consolidation of the right lower lobe and a moderate sized effusion (Fig. 1). A diagnosis of Pneumonia with reactive effusion was made and treated with oral antibiotics. There was no resolution after 1 month so aspiration was performed. Cultures grew Enterobacter and Eschericia Coli. This was treated with further oral antibiotics and intercostal drainage. She settled clinically but relapsed. Ultrasound examination revealed a ‘thick walled effusion’, in keeping with a chronic empyema. She was referred to the

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Fig. 1. Chest X-Ray showing right lower lobe consolidation and pleural effusion.
Intrathoracic gallstones have been described in a number of cases and have been attributed to gallbladder rupture and stone spillage [1,2,4]. The proposed pathogenesis is that the retained pocket of stones induces an inflammatory reaction which in the presence of infection leads to abscess formation. This localised reaction may allow passage of stones into the thorax by eroding through the right hemidiaphragm forming a fistula. Fistula formation is low, occurring in approximately 10% of subphrenic abscesses [7]. It has been suggested that gallstones may passively migrate into the thorax via the fistula [2]. In this patient the fistula persisted thus the empyema could be attributed to spread from the subphrenic abscess. The diagnosis was delayed due to vague symptoms and complications such as simple effusion and atelectasis are common after uncomplicated laparoscopic cholecystectomy [6].

In summary, it is worthwhile documenting in operation notes that gallbladder rupture and stone spillage has occurred so that prolonged chest symptoms raise a high index of suspicion. This will speed diagnosis and referral to a thoracic unit for treatment.

References