

Isolated rupture of the gallbladder following abdominal trauma

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Abstract

We report a case of isolated post-traumatic perforation of the gall bladder in a 29-year-old patient. It is a rare entity. Ultrasound and abdominal CT scan can suspect the diagnosis. The treatment is surgical. It consists of a cholecystectomy associated with intraoperative cholangiography.

Introduction

Isolated post-traumatic gallbladder perforation is a very rare entity [1]. The clinical diagnosis before surgery is exceptional in view of the non-specificity of the clinical signs. We present here a case of an isolated vesicular perforation in a post-traumatic context in a 29 years old young man.

Case report

He is a 29-year-old patient, without past medical history, who was victim of a road accident: collision between two cars. The initial examination did not show initial vital distress. However, the abdominal examination revealed an abdominal guarding. Biology is without anomalies. The whole-body computed tomography scan showed a medium abundance of peritoneal effusion with a doubt about a solution of continuity of the wall of the gallbladder (Figure 1). The patient underwent emergency surgery via laparotomy. On exploration: we found a choleperitoneum of average abundance with 1-centimetre perforation located at the level of the anterior wall of the gallbladder (Figure 2). A cholecystectomy with peritoneal toilet was performed. An intraoperative cholangiography was performed in search of a lesion in the biliary tree returned without abnormalities. The postoperative course was uneventful.



Figure 1. Computed tomography scan showing a solution of continuity of the gallbladder (white arrow).



Figure 2. An intraoperative image showing vesicular perforation (white arrow)

Discussion

This patient suffered an isolated traumatic rupture of the gallbladder. This is an exceptional case. In fact, the neighbouring organs offer protection for the gallbladder. Traumatic vesicular lesions are relatively rare and have been reported only in 2 to 3% of all cases of abdominal trauma [2]. The gallbladder is rarely affected alone and is frequently associated with other intra-abdominal lesions with an estimated mortality of 24% [3]. The most commonly associated lesions are hepatic lacerations, splenic lacerations and mesentery lesions [2]. Gallbladder rupture is often seen in car crash, falls, and in closed trauma of the abdomen. Ultrasound and abdominal CT scan are essential for diagnosis [4]. However, the diagnosis can only be made intraoperatively. In fact, the clinical presentation is generally an acute peritonitis requiring emergency intervention. Cholecystectomy is the

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standard treatment associated with a peritoneal toilet [3]. A careful exploration of the entire peritoneal cavity is mandatory before retaining the isolated perforation of the gallbladder. However, a cholecystectomy can be avoided if the perforation is small and can be easily sutured [2]. Cholangiography can be performed to rule out an associated biliary lesion.

Conclusion

Isolated perforation of the gallbladder in a traumatic context is rare but should not be overlooked. The couple computed tomography scan of the abdomen and abdominal ultrasound strongly suspect the diagnosis. Emergency cholecystectomy is the standard treatment.

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