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DOI: 10.17235/reed.2019.5787/2018
Link: PubMed (Epub ahead of print)

Please cite this article as:

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CE 5787 inglés

Post-ERCP hepatic subcapsular hematoma, from conservative therapy to emergency surgery: an unusual though extremely serious complication

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Key words: ERCP. Subcapsular hematoma. Surgery. Choledochal lithiasis.

Dear Editor,

Post-endoscopic retrograde cholangiopancreatography (ERCP) subcapsular hematoma usually results from an accidental puncture of the intrahepatic biliary tree and microtrauma during cannulation with a metallic guidewire (1-4). Risk factors include a number of cannulation attempts, portal hypertension, coagulopathy, duodenal papilla destructuration, bile duct obstruction and malignancies (1,3-5). Presentation as an expanding hematoma associated with hypotension or capsule rupture with secondary hemoperitoneum that requires emergency surgery is exceptional, as in our first case described below. Five such cases have been previously reported (Table 1).

Case report 1

A 51-year-old male developed a hepatic subcapsular hematoma within 48 hours following ERCP. He presented with hemodynamic instability and a computed tomography (CT) scan revealed a large subcapsular hematoma, 18 x 5.5 x 18 cm in size, with multiple active bleeding spots. The segmental arterial branches IVb and VII were initially embolized but persistent anemization and a failed embolization attempt
prompted emergency surgery.

Case report 2
An 83-year-old male developed a hepatic subcapsular hematoma without active bleeding within 15 days after ERCP. The patient remained stable under surveillance in the Intensive Care Unit for 72 hours and a conservative management was successful in this case.

Conclusion
Due to the growing number and invasiveness of endoscopic procedures, we must bear in mind this serious and often delayed complication in order to respond promptly. Furthermore, a range of options should be considered from expectant management via radiologic treatment to surgery.

References
Table 1. Cases with subcapsular hematoma that required emergency surgery

<table>
<thead>
<tr>
<th>Author</th>
<th>Age</th>
<th>Sex</th>
<th>ERCP</th>
<th>Metallic guidewire</th>
<th>Onset</th>
<th>Manifestations</th>
<th>Ruptured hematoma</th>
<th>Surgery</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>González et al. (1)</td>
<td>30</td>
<td>F</td>
<td>Sphincterotomy</td>
<td>NA</td>
<td>72 hours</td>
<td>Pain in RUQ</td>
<td>No</td>
<td>Peritoneal evacuation + lavage, hemostasis</td>
<td>Dead</td>
</tr>
<tr>
<td>Bartolo et al. (1,3)</td>
<td>66</td>
<td>F</td>
<td>Sphincterotomy</td>
<td>Yes</td>
<td>Immediate</td>
<td>Hypotension, tachycardia</td>
<td>NA</td>
<td>Hemo-peritoneum evacuation, hemostasis</td>
<td>Dead</td>
</tr>
<tr>
<td>Priego et al. (1,3)</td>
<td>30</td>
<td>F</td>
<td>Sphincterotomy</td>
<td>No</td>
<td>Immediate</td>
<td>Pain in RUQ, tachycardia</td>
<td>NA</td>
<td>Surgery</td>
<td>Alive</td>
</tr>
<tr>
<td>Pérez et al. (1,3)</td>
<td>72</td>
<td>F</td>
<td>Sphincterotomy</td>
<td>NA</td>
<td>2 hours</td>
<td>Pain in RUQ</td>
<td>Yes</td>
<td>Hemo-peritoneum evacuation</td>
<td>Alive</td>
</tr>
<tr>
<td>García-Támez et al. (1)</td>
<td>25</td>
<td>F</td>
<td>Sphincterotomy</td>
<td>Yes</td>
<td>12 hours</td>
<td>Pain in RUQ, anemia 4.2 mg/dl</td>
<td>Yes</td>
<td>Surgery</td>
<td>Alive</td>
</tr>
</tbody>
</table>
applicable, not available.