LETTERS TO THE EDITOR

A safe and inexpensive method for laparoscopic hydatid cyst evacuation

Sir,

Laparoscopic approach was recently introduced to treat hydatid liver disease but main concerns still remain in regard to possible spillage of hydatid material during cyst manipulation with the consequent risk of recurrence and dangerous anaphylactic reactions. Several devices were developed to evacuate laparoscopically hydatid cysts. Insertion of a needle into the cyst for aspiration of its content and to replace the same volume with a scolicidal agent is the most widely known method but its main drawback is the occlusion of the needle. Alper et al. developed an aspirator-grinder apparatus driven by an electrical spiral motor with good results, but the device is not available in every operating room due to the rarity of hydatid disease. Other methods were described by authors working in endemic areas but all suffers of a complexity that precludes their diffusion [1]. Here we describe a simple and inexpensive method to drain laparoscopically hydatid liver cyst and to carry out safely the liver resection. A 43-year-old man was admitted at our Department for abdominal pain and jaundice. Ultrasonography revealed a 12 cm cystic mass of liver segments II and III with inner daughter cysts and dilatation of the main bile duct (14 mm). CT scan and serology were consistent with hydatid disease. Endoscopic Retrograde Cholangiopancreatogram (ERCP) was performed in order to identify the biliary fistula – developed at the level of the biliary branch for segment II – and to drain the biliary tree by means of sfncterotomy and drainage. Patient was then scheduled for a laparoscopic robot-assisted liver resection due to the favorable location of the lesion. Pneumoperitoneum was induced at 12 mmHg with the Verres needle. Camera port was placed at the umbilicus and three operative trocars were inserted in the right and left upper quadrants and in the left flank, respectively. The left liver surface was covered with gauzes soaked in hypertonic saline solution introduced through a 10-mm trocar. A stitch was passed on the cyst surface for liver retraction in order to avoid spillage during its incision. A small incision was then produced and a 6.5 gauge endotracheal tube (ET) armed with a 5-mm suction device was inserted through the 10-mm left-quadrant trocar anduffed once introduced into the cystic cavity. Continuing suction avoided spillage during tube introduction and complete evacuation of the hydatid content was reached by external drainage through the ET facilitated by the cystic pressure. The suction device passed through the ET tube instead achieved aspiration of the daughter cysts. Finally, the cavity was washed with 3% saline solution for five minutes through the ET to inactivate the remaining scolices. The ET was then removed and the cystic wall incision closed with a running suture. Percystectomy was completed with the three-arm da Vinci® surgical system docked over the patient's left shoulder. The cyst was removed through the umbilical port-site. Gross pathological examination revealed complete removal of all daughter cysts. Patient had an uneventful postoperative period, was discharged on day six and is actually disease-free at six-month follow-up. We believe that the use of a ET is a safe, inexpensive and reproducible method to evacuate hydatid liver cyst. During its use we did not observe spillage of the cyst content. Evacuation and instillation of the scolicidal fluid were easily carried out allowing a safe resection. This method could enlarge indications for laparoscopic treatment of hydatid liver disease also in Western hospital where devices for its treatment are not easily available.

Reference


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