BRIEF COMMUNICATION

Gallbladder Teratoma and a Review of the Literature

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1. Introduction

Teratoma is a mixed germ cell tumor containing tissues from all three germ cell layers: the ectoderm, mesoderm, and endoderm. The most common teratoma site in adults is a gonad, whereas in children the most common site is the sacrococcygeal region.1 Teratomas rarely occur in the gallbladder; only two cases have been reported so far in the English-language literature.2,3 We present a case of a mature cystic teratoma in the gallbladder that was successfully managed via open cholecystectomy.

2. Brief report

A 5-year-old girl was incidentally diagnosed with a choledochal cyst at a local medical department by abdominal sonography during an episode of acute gastroenteritis. Apart from mildly elevated liver enzymes (aspartate aminotransferase, 54 U/L; alanine aminotransferase, 36 U/L), all her other laboratory data were within normal ranges (r-glutamyl transpeptidase, 8 U/L; total bilirubin: 0.4 mg/dL, direct bilirubin: 0.2 mg/dL). Further abdominal sonography indicated a 3.2 cm × 2.6 cm × 2.5 cm cystic mass in the hilar area of the liver, contiguous with the gallbladder. This cystic lesion had homogeneous echoic wall and internal turbid fluid, and the common bile duct was not clearly visualized. Otherwise, the pancreas appeared normal and no typical feature of acute cholecystitis was evident. The sonographic imaging thus raised the suspicion of a choledochal cyst. Neither further computed tomography nor magnetic resonance (MR) imaging studies were performed because the patient’s family considered the radiation exposure and the long gap of waiting for the surgery. An underlying condition was cognitive delay. A time series of abdominal images showed that distended bowel loops had been present since early infancy. Under the impression of aerophagia-related abdominal distention, a laparotomy rather than a laparoscopy was performed.

During the operation, a cystic tumor was located at the gallbladder dome (Figure 1A). The tumor did not contain bile and was not in communication with the gallbladder (this was checked by injection of normal saline; Figure 1B). The common bile duct had a normal diameter without any abnormal dilation. Cholecystectomy was performed without any intraoperative complication. The patient was discharged on postoperative Day 3.

2.1. Pathological findings

A cystic lesion was present at the gallbladder dome. The gallbladder measured 3.2 cm × 2.1 cm × 1.4 cm and had a

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smooth serosa. On opening, the gallbladder mucosa was intact and stained with bile. The cystic lesion measured 2.6 cm \(\times\) 1.5 cm \(\times\) 1.3 cm. No communication was evident between the cystic lesion and the gallbladder.

Microscopically, the cystic lesion was composed of several cystic cavities lined by gastric mucosa and ciliated columnar epithelium, with an underlying smooth muscle wall. Some thyroid follicles were noted within the wall. No immature elements were seen. The final diagnosis was a mature cystic teratoma.

3. Discussion

Teratomas occur rarely in the biliary system; only two cases have been reported from the gallbladder in the English-language literature.\(^2\)\(^3\) Both patients had immature teratomas. Adjuvant chemotherapy was given to a 9-month-old girl, and she experienced tumor recurrence up to 7 years of follow-up.\(^2\) The other patient was a 60-year-old female, and no treatment method or outcome was reported.\(^3\)

We report the first case of a mature cystic teratoma of the gallbladder. Although very rare, a teratoma should be considered when a cystic lesion is found at the porta hepatitis area in children, and further differentiation should be made with the aid of abdominal computed tomography or MR cholangiopancreatography.\(^6\)\(^7\) Cholecystectomy should be adequate if complete resection of the tumor can be achieved. Laparoscopic cholecystectomy was not the treatment of choice for our patient because of the presence of distended bowel loops. We suggest that abdominal computed tomography or MR cholangiopancreatography be performed in patients echo-diagnosed with choledochal cysts, and laparoscopic cholecystectomy can be considered for patients with gallbladder teratomas if complete resection appears to be achievable.

Conflicts of interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers’ bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

Appendix A. Supplementary data

Supplementary data related to this article can be found at http://dx.doi.org/10.1016/j.pedneo.2014.06.008.

References