Endoscopic Papillotomy in a Child with a Biliocutaneous Fistula

Biliocutaneous fistula is one of the major complications of biliary tract surgery following ductal obstruction by tumors, benign strictures, or stones. Endoscopic papillotomy has been widely accepted as the first-line treatment for biliary disease since 1974 (1,2), but experience with this procedure in children is limited. We present here the case of a sixteen-month-old child with a biliocutaneous fistula following resection of a hepatoblastoma of the liver. She presented with abdominal tenderness and vomiting that had continued for one month. Her weight was 7.8 kg, and she appeared pale and dehydrated (pulse rate 128/min). On ultrasonography followed by percutaneous biopsy, a hepatoblastoma of the left liver lobe was diagnosed, and the tumor, weighing 1.3 kg, was removed by a left lobectomy. A daily quantity of 250–300 ml of bile was collected from the drain placed under the liver during 19 days of postoperative follow-up (Figure **1**). Following endoscopic papillotomy, which was performed without complications, the bile output decreased gradually and stopped completely on the eighth day after papillotomy, so that the drain could be removed. The child recovered quickly, and gained 1.1 kg after one month (Figure **2**). She received chemotherapy, and there was no recurrence of the tumor or the fistula after a six-month follow-up. Biliocutaneous fistulas continue to be a major complication of biliary tract surgery. Surgical re-exploration of such patients is often difficult due to infection, edema, and fibrosis in the periportal area, leading to a high morbidity and mortality rate (3). Recently, nonsurgical techniques, such as percutaneous transhepatic biliary decompression, endoscopic papillotomy, nasobiliary drainage, endoscopic or percutaneous endoprosthesis have been used to treat these complications (4). As an alternative to percutaneous or endoscopic placement of prostheses, which may have complications such as bleeding, cholangitis, bile leakage or perforation, endoscopic papillotomy can be successfully used in all cases with fistulas or common bile duct stones, or both, and can help to avoid surgery also in the pediatric age-group (5).

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Figure 1: Bile leakage, seen from the drain inserted underneath the liver.

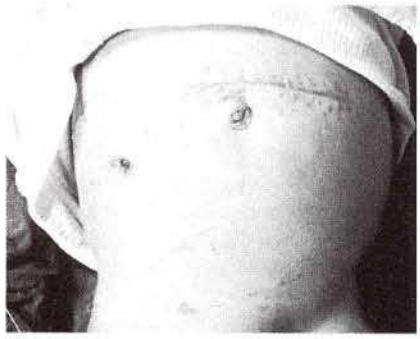

Figure 2: The bile leakage has completely ceased after endoscopic papillotomy.

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