Polypoid Lesions of the Gallbladder in Children

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ABSTRACT

Polypoid lesions of the gallbladder in children are rare. We report a case of a gallbladder polyp in a 14-year-old boy who presented with recurrent right upper quadrant abdominal pain. Ultrasound examination of the abdomen revealed a polypoid lesion of the gallbladder. His symptoms resolved after laparoscopic cholecystectomy. Histological examination of the gallbladder demonstrated a benign adenomatous polyp. Although the experience with polypoid lesions of the gallbladder in children is limited, we currently recommend cholecystectomy because these lesions are associated with acalculous cholecystitis, and because their long-term effects are unknown.

Key Words: Adolescence, Cholecystectomy, Gallbladder neoplasms, Polyps.

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INTRODUCTION

Polypoid lesions of the gallbladder are extremely rare in children.[1] In the adult population these lesions are more common, but their incidence has not been clearly reported.[2-5] They may or may not coexist with gallstones. Although the indications for cholecystectomy in the presence of polypoid lesions in adults have been established,[2,5] they remain to be clearly defined in children because of the limited experience. We report an unusual case of a polypoid lesion of the gallbladder in an adolescent boy, which was successfully treated by laparoscopic cholecystectomy.

CASE REPORT

A 14-year-old male presented with a four-month history of recurrent right upper quadrant abdominal pain. The initial episode, which began suddenly and persisted for three days, had been severe enough to warrant admission to the hospital. The presumptive diagnosis was appendicitis, for which surgical intervention was deemed unnecessary. After his discharge from the hospital, the pain recurred once a week, and sometimes lasted for several days. He had no nausea, vomiting or any other associated symptoms.

Physical examination at our institution (Westchester County Medical Center) revealed inconsistent right upper quadrant tenderness with an occasional positive Murphy's sign. All laboratory results were normal, including complete blood cell count, liver function tests and serum amylase. Initial ultrasound of the gallbladder done at a community hospital had revealed the presence of multiple small gallstones. However, at our institution the presence of gallstones was not confirmed. A repeat ultrasound examination demonstrated a 3 mm polypoid lesion in the body of the gallbladder, close to Hartmann's pouch **(Figure 1)**. Computerized tomography of the abdomen was normal, and failed to demonstrate the polypoid lesion in the gallbladder.

Laparoscopic cholecystectomy was recommended, and accomplished uneventfully. The gallbladder measured 5 cm of length and 1.5 cm in diameter. Histological examination revealed a benign 2 mm adenomatous polyp in the body of the gallbladder, close to the Hartmann's pouch **(Figure 2)**. No gallstones were found. After cholecystectomy the

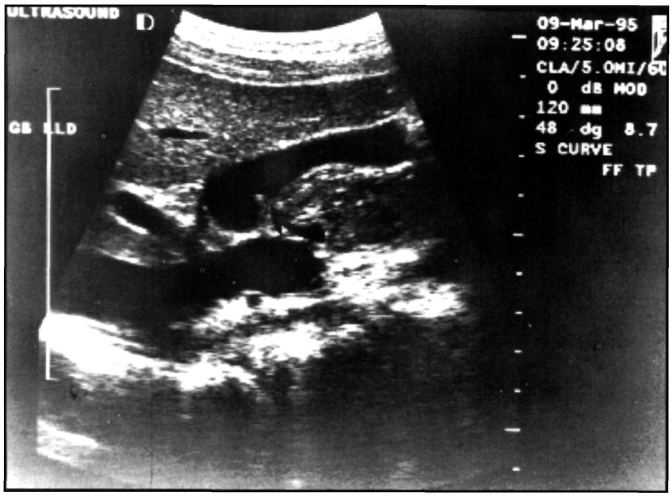

Figure 1. Sonogram of the gallbladder showing polypoid lesion (arrow).

Figure 2. Microscopic view of adenomatous polyp (arrow) of the gallbladder.

patient's symptoms completely disappeared. He has remained well and pain-free after two years of follow-up.

DISCUSSION

Polypoid lesions of the gallbladder have been the subject of controversy in the medical literature.[2-4] The most accepted classification was proposed by Christensen and Ishak,[6] who classify the lesions as benign tumors, pseudotumors, and malignant neoplasms. Over 90% of the polyps are benign, with cholesterol lesions accounting for the majority.[4-5] Adenomas of the gallbladder account for only 1% of all lesions,[7] but they are important because of their potential transformation to invasive carcinoma.[3,4,7,8] Cancer of the gallbladder is the most common malignant tumor of the biliary tract. It is characterized by late diagnosis and extremely poor prognosis with five-year survival of less than 5%. The importance of early diagnosis is paramount in these cases, since the only survivors have been reported following early cholecystectomy.[7]

Polypoid lesions are mainly composed of heterotopic tissues, the most common one being ectopic gastric mucosa, followed by ectopic pancreatic and thyroid tissue.[1] In our search of the literature we did not find any reports of adenomas of the gallbladder in children. For diagnostic purposes, ultrasound seems to have the best sensitivity and specificity.[2-5] Computerized tomography with oral cholecystographic enhancement has been reported to be successful in equivocal cases.[4] In the present case computerized tomography failed to demonstrate the polyp.

In the adult population, accepted indications for cholecystectomy in the presence of polypoid lesions of the gallbladder include polyps over 10 mm in diameter, patient age over 50 years, sessile polyps, associated gallstones, possibility of malignancy and the presence of symptoms regardless of the size of the polyp.[2,5,7,8] The experience with polypoid lesions of the gallbladder in children is limited. However, because the presence of these lesions in the gallbladder of children has been associated with acalculous cholecystitis and because the long-term effects of their presence in the gallbladder are unknown, we currently recommend cholecystectomy in all children with such lesions.

Laparoscopic cholecystectomy, which is now well accepted as a safe procedure in the pediatric population, even in small children, should be the procedure of choice unless there are specific contraindications for its use.

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