Mirizzi Syndrome - An Uncommon Cause of Obstructive Jaundice in a Child

Mirizzi syndrome refers to compression of the common hepatic duct (CHD) by a stone in the gallbladder neck/ cystic duct (CD) causing obstructive jaundice [1,2]. It is often missed preoperatively due to non-specific symptoms and limitations of radiological imaging. This can lead to significant operative morbidity and biliary injury [2,3]. It is rare in children.

A 15-year-old boy presented to our clinic with a history of epigastric pain for three months. He was taking protein pump inhibitors for presumed gastro-esophegeal reflux disease with only partial relief. Before an upper endoscopy could be accomplished, he was hospitalized with acute worsening of pain. Laboratory work-up revealed conjugated hyperbilirubinemia and trans-aminitis. Abdominal ultrasonography revealed gallstones with dilation of CHD. Emergency endoscropic retrograde cholangio-pancreatography revealed obstruction of the middle third of the CHD suggestive of Mirizzi syndrome. No stone was identified in the common bile duct, but a biliary stent was placed. A follow-up abdominal computed tomography showed persistent biliary dilation and cholecystitis. In view of these findings, he underwent a percutaneous cholecystostomy to allow resolution of acute inflammation in preparation for interval cholecystectomy. At follow-up, he complained of pain with flushing of cholecystostomy tube. An injection study revealed obstruction of the CD by a stone impacted in the neck of the gallbladder with no drainage of the contrast in to the bile duct. This finding further supported Mirizzi syndrome. He underwent a laparoscopic cholecystectomy and the intraoperative findings were consistent with Type 1 Mirizzi syndrome, without evidence of cholecystocholedochal fistula. He eventually underwent removal of his biliary stent and is doing well on follow-up.

Gallbladder disease in children is rising due to its association with childhood obesity [4]. This case illustrates that rare complications like Mirizzi syndrome can occur in children, and clinicians should be well-informed of it. Treatment is primarily surgical and a high pre-operative diagnosis rate (>80%) has been shown to be associated with lower risk of complications [5].

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