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Peer Review

Review of: "Management of Choledochal Cyst of Cystic Duct in Adult: A Very Rare Case Report"

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This case report presents a rare and clinically significant instance of a choledochal cyst (CC) originating from the cystic duct in a 64-year-old male, further complicated by a common bile duct (CBD) stone and a liver abscess. The timely diagnosis and successful management of this complex case underscore critical aspects of biliary pathologies, particularly given the rarity of such presentations in adulthood and the potential for malignant transformation. The report effectively highlights the diagnostic challenges and the importance of advanced imaging and appropriate surgical intervention. A significant strength of this case report is the detailed and clear presentation of the patient's clinical course. From the initial presentation with nonspecific symptoms, through the diagnostic workup with various imaging modalities (ERCP), to the surgical management and favorable postoperative outcome, the narrative provides a comprehensive understanding of the patient's journey. This detailed account is invaluable for clinicians who may encounter similar rare cases. The rarity of a choledochal cyst originating from the cystic duct, especially in an adult male, is a major highlight of this report. This specific type of CC (often debated within Todani's classification) is exceptionally uncommon. Presenting this case contributes significantly to the limited existing literature on this particular variant, offering practical insights into its presentation and management in an older demographic. The multidisciplinary approach to diagnosis and management, involving initial ERCP for CBD stone clearance followed by laparoscopic cholecystectomy, cyst excision, and liver abscess drainage, demonstrates optimal clinical practice. This staged approach, prioritizing the resolution of acute complications (CBD stone, liver abscess) before definitive surgical management of the cyst, showcases sound clinical judgment and contributes to the favorable outcome. The discussion section provides a comprehensive overview of choledochal cysts, including their prevalence, proposed etiologies, clinical presentations, and diagnostic modalities. The detailed

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comparison of various imaging techniques (USG, MDCT, ERCP, MRCP, HIDA scan) and their respective strengths and limitations is particularly informative. This reinforces the importance of a tailored imaging strategy for accurate diagnosis of complex biliary anomalies. Furthermore, the report effectively emphasizes the critical risk of malignant transformation associated with choledochal cysts. This crucial aspect underscores why early and complete surgical excision, rather than mere drainage procedures, is the preferred treatment strategy. Highlighting this long-term complication reinforces the need for vigilance and appropriate management in all patients diagnosed with CC, regardless of age. However, there are several opportunities for improvement that could enhance the educational and scientific value of this case report. While images are mentioned (Figure 1, 2, 3), their actual inclusion and clarity within the text are paramount. High-quality imaging (e.g., MRCP images demonstrating the cystic duct cyst, intraoperative findings, and histopathological slides) would significantly strengthen the diagnostic and pathological insights presented. The histopathological findings are mentioned as "chronic active cholecystitis with Rokitansky-Aschoff sinuses extending into the subserosal layer, moderate chronic inflammatory cell infiltration, fibrosis, and evidence of cholelithiasis." While this is good, a more detailed description specific to the cyst's pathology, such as the lining epithelium, the presence or absence of dysplasia, or any signs of malignant change within the cyst wall itself, would be highly beneficial, especially given the emphasized risk of malignancy. While the discussion broadly touches upon the debate surrounding the classification of cystic duct cysts (Type VI vs. Type II variant), a more explicit statement on how this particular case aligns with or challenges existing classification schemes, and why the authors favor a certain view (if they do), would provide deeper academic context. For example, explicitly stating how this specific cyst fits into Todani's classification based on the intraoperative and imaging findings would be valuable. The post-operative medication list is provided, but a brief rationale for the specific antibiotics chosen (e.g., targeting common liver abscess pathogens) and the duration of their administration would add clinical value. Similarly, any follow-up plan for the patient, particularly regarding long-term monitoring for recurrence or malignant transformation, would be beneficial, reinforcing the "humanized" aspect of patient care beyond immediate discharge. In conclusion, this case report effectively highlights a rare presentation of a choledochal cyst of the cystic duct in an adult, complicated by concurrent biliary pathologies. Its strengths lie in the detailed clinical narrative, the emphasis on multimodal imaging, and the successful management of a complex case. By incorporating high-quality images, providing more specific histopathological details of the cyst, clarifying the classification debate, and offering insights into the rationale behind treatment choices and long-term

follow-up, the report can be further enhanced to serve as an even more impactful educational and scientific contribution to the literature on rare biliary anomalies.

Declarations

Potential competing interests: No potential competing interests to declare.