



Letter to editor re: Baba T, Mukai M, Masuya R, et al. (2019) The long-term health-related quality of life in patients operated for choledochal cyst. *Pediatr Surg Int* 35:539–546

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Baba et al. [1] are to be commended on their attempt to investigate long-term health-related quality of life in patients after surgery for choledochal cyst (CC). Their paper has limitations, in particular the response rate of 44%, which may skew the data towards those with complications. The authors' questionnaire did not specifically enquire about long-term perceptions of abdominal scarring, but the study demonstrated that adverse long-term quality-of-life outcomes after CC excision related to surgical complications. Health-related quality-of-life scores after uncomplicated surgery for CC were similar to those of normal individuals. The paper underlines the importance of avoiding long-term complications after CC surgery.

A large proportion of publications on paediatric CC in the last 15 years have concerned laparoscopic choledochal cyst excision. Relatively little is known about the long-term outcomes after laparoscopic excision, since few publications have recorded postoperative follow-up periods beyond 5 years. This is a concern for several reasons [2]. In most reports of laparoscopic “radical cyst excision”, the bilioenteric anastomosis is to the proximal common hepatic duct rather than a wide hilar hepatico-jejunostomy [3]. This increases the risk of a late anastomotic stricture [4] and inevitably must increase the small long-term risk of residual bile duct malignancy. High rates of bilioenteric stricture and redo surgery after laparoscopic CC excision have been reported by some authors within relatively short follow-up periods [5–8]. Anastomosis to the common hepatic duct may also overlook a hilar duct stricture [9] or an aberrant right

hepatic artery crossing anterior to the common hepatic duct, a well-recognized anatomical variant that is easily dealt with at open surgery but which can cause biliary obstruction if left [7].

Currently, the long-term outcomes of surgery after CC excision are being overshadowed by the technical challenges and potential short-term gains of laparoscopic techniques. We should not abandon laparoscopic techniques, but they need to be advanced to the point that patient outcomes are similar to those achievable with expert open surgery, i.e., creating a wide hilar hepatico-jejunostomy with very low rates of bile leak, adhesion obstruction, and late stricture [2], whilst taking advantage of the reduced postoperative pain and improved cosmesis of minimally invasive surgery. Crucially, it is the long-term outcome of CC cyst excision that determines success for the patient as highlighted by Baba et al. [1]. These patients have a lifetime ahead of them (well beyond the care of paediatric surgeons) and it is our duty to ensure that long-term complications are as low as possible.

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Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

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