

## EDITORIAL

**HPB further education - Bile duct injury**Alastair Young<sup>1</sup>

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**Bile duct injury - recent literature**

Bile duct injuries (BDI) remain a concern for any surgeon who carries out cholecystectomy both for their prevention and then their optimal subsequent management to minimise harmful consequences to the patient.

The most radical treatment required as a result of BDI is liver transplantation and Chiche and colleagues recently presented their national study on liver transplantation in 30 patients who had BDI following cholecystectomy in France.<sup>1</sup> Transplantation occurred a median of 10 years following the injury highlighting the long-term consequences and the need for surveillance but ultimately their series had a 70% 5-year survival demonstrating that it is a successful treatment when needed. Sometimes patients with BDI require a major hepatectomy and Furtado and colleagues report a systematic review in this area.<sup>2</sup> They found eight studies reporting on 2210 patients with BDI of whom 84 (4.3%) required a subsequent hepatectomy. Their study showed a large degree of variability in approach to selection and management over time, and between centres, but there was agreement that requirement for hepatectomy was associated with vasculobiliary injury and had a high morbidity, particularly bile leak.

The study by Dai and colleagues highlighted that it is not just the patient who needs support following a BDI.<sup>3</sup> They surveyed 1466 surgeons in China who had a BDI and 84% had suffered mental distress. This suggests more support is needed on psychological care for our colleagues when surgeons have this complication.

Therefore, it is key to try and prevent BDI. Terko and colleagues presented a retrospective review of operative photos depicting the critical view of safety in 1532 patients undergoing laparoscopic cholecystectomy in Finland.<sup>4</sup> They showed that the critical view was achieved satisfactorily in 23.1% of operations and that BDI rate and complication rate were both increased when there was either an unsatisfactory critical view or no photograph taken. This study has several confounding factors which the authors describe but highlights the importance of the

critical view of safety to try and maximise successful patient outcomes. However, Greene and colleagues have presented a further safety technique - the inferior border of safety.<sup>5</sup> This runs from Rouvieres sulcus to the junction of the peritoneum and fat overlying the cystic and hilar plates near the base of segment 4. This landmark has been well accepted in their training program as a further tool to optimise safety in gallbladder surgery.

In terms of further continuing medical education in BDI available to freely access on myHPB. The recent talks I would like to highlight in this area are:

## 1. EAHPBA Seminar 4, talk 3

Prof Ed Jonas.

Talk on managing BDI running through two case presentations including anatomical anomalies encountered in this area.

## 2. Prevention of Bile Duct Injuries - Video Masterclass

Dr Saxon Connor.

Discusses strategies to carry out safe cholecystectomy to avoid BDI.

## 3. Meet the professor 07 from IHPBA 2020 Melbourne (44.05)

Dr Steve Strasberg and Dr I Endo.

They present some data on BDI, strategies to avoid BDI and some data on longer term outcomes following treatment with discussion of different scenarios.

## 4. Debate IHPBA 2018 Geneva

Debate between Dr Steve Strasberg (Immediate) DEB 1.1 and Prof Krishnakumar Madhavan (delayed) DEB 1.2. They debate the pros and cons on the different arguments on the optimal timing of repair of a bile duct injury with concomitant major vascular injury.

<sup>1</sup> On behalf of Publication and communication committee IHPBA.

**Conflicts of interest**

None declared.

**References**

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