

Conservative Management of Bile Duct Injuries

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The bile duct is most commonly injured during a hurried or difficult laparoscopic cholecystectomy performed by a young surgeon. The incidence of such an accident varying between 0.1 – 0.3 %. Such injuries carry the burden of extreme morbidity, significant and anxiety both to the patient and the surgeon, besides possible litigation and mortality.

Only about a third of these injuries are detected during the procedure, the rest presenting as a bilioma or biliary fistula through a drain placed after a difficult dissection in the Calot's triangle.

The commonest finding on ERCP in such patients is a complete cut off at the level of the Common Hepatic Duct (CHD) with a clip placed across the distal segment of the bile duct. In the rest of the patients, who do not have a complete disruption of the bile duct and in whom the bile is leaking through the cystic duct stump or a side hole due to a partial/lateral injury have a relatively quicker resolution of the fistula once a 7 - 10 Fr plastic stent is placed across the injured segment into the CHD.

It is the former group of patients who require conservative management to tide over the time during which it is hoped that the local inflammatory response and edema will reduce, and the problem will either resolve spontaneously by forming a hepatico - duodenal fistula which may or may not ultimately lead to a bile duct stricture.

Such a line of treatment can only be continued in a patient with a controlled fistula. The management of such a patient requires experience and patience both on the part of the clinician and the patient. The issues which need to be essentially addressed are the management of sepsis and maintenance of nutrition. Any residual collections in the left sub - diaphragmatic space or pelvis need to be drained by image guided placement of pigtail drains and administration of drain fluid culture based antibiotics. In the meantime the patient should be encouraged to eat well, with adequate intake of proteins, and electrolyte rich fluids to compensate for the ongoing losses. The nutritional status and efficient drainage needs to be monitored on a regular basis by keeping an eye on the body weight, hemoglobin, leucocyte count, serum albumin and electrolytes - especially sodium and potassium, which may need to be supplemented. Workers have attempted refeeding of bile being lost through the drains, but personally I have found it difficult to convince patients to drink it even after mixing it with aerated drinks.

Such patients need regular reassurance, encouragement and morale boosting, which becomes easier when they become afebrile, remain dry. With such an approach it has been possible to salvage all of them, nearly two third without resorting to any surgery.