Laparoscopic Perforated Cholecystectomy

What is new in cholecystectomy today - the bread and butter of general surgery? Can a cholecystectomy be performed always laparoscopically? Probably not. Can there be no iatrogenic injuries and no mortality? Certainly not.

If this is the picture you would see when you put your first port in, in a 74 years old patient in near arrest due to sepsis and respiratory failure how many of you would continue laparoscopically and when and why would you go the good old days of open surgery? Would a large inflammatory mass in the right upper quadrant, barely allowing for insertion of a trocar and certainly not living much room for other ports put you off from laparoscopic surgery? What are the mortality, morbidity and recovery with open surgery in such settings?

This case: a 74 years old man on anticoagulation for atrial fibrillation, presents with acute cholecystitis and sepsis; after a brief improvement with initial conservative management with rehydration, antibiotics and cardiology review for reversal of Warfarin, 48 hours later he deteriorates rapidly and is taken to surgery for cholecystectomy. At laparoscopy a large inflammatory mass is found in the right upper quadrant; gentle blunt dissection frees the omentum and colon from the liver and diaphragm and reveals a large subphrenic collection and perforated gallbladder. The Visiport was used as the initial trocar for insufflation; the zero degree telescope was manipulated to create enough space to insert further ports in conventional location.

The abscess is dealt with immediately by drainage, removal of fibrinous deposits, brake down of loculi and lavage.

A perforated gallbladder is emptied and dissected. Dissecting on the gallbladder can keep you out of trouble most of the time, however there is a simple rule that works best -- don't cut anything that you don't know what it is. The suction-irrigation device is a good blunt dissector but needs to be used gently and wisely.

There are other blunt dissectors widely used but they don't have suction and having suction allows you to see what you're doing. Dissection of the Calot triangle remains the gold standard; although it is not advisable to divide any structures prior to cholangiogram many of us would not do routinely cholangiography; use your common sense and divide only when you are sure of what you are cutting or do a cholangiogram if in doubt; if you do routine cholangiography you can do it in difficult cases, too. When you get good at it you will be willing to have a go at bile duct explorations, too -- it is tempting. I actually like the Concord needle for cystic duct cannulation, but it was out of stock on that day.

Although it appears unnecessary I routinely ligate the cystic duct with a 2/0 PDS loop; I have almost never failed to ligate a duct and to present have not had a cystic duct bile leak -- I am a great believer in a ligature and use the clip only as a marker for my ligature; I do not ligate the cystic artery routinely and rather use the diathermy to divide it's branches on the gallbladder. When dissecting the gallbladder I stay on the gallbladder side avoiding bleeding from the liver and injuries to a duct of Luschka. Such a gallbladder is worth an Endobag and although I rarely use drainage of the Morrison's pouch -- this is a good idea in difficult surgery to avoid the consequences of a possible bile leak.

Although the dissection was vascular and the patient's INR was still high there was only a drop in haemoglobin of less than 1g and there were no postoperative transfusions. The patient recovered well, was discharged from ICU three days later and left the hospital in less than a week, with full recovery.

The video is highly edited highlighting the key steps of the surgery and does not reflect the difficulty of the surgery; the laparoscopic time was 70 minutes.

Reference: Dr Oliver Florica
www.sydneygastricbanding.com.au [1]

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http://www.surgicalproductsmag.com/videos/2009/11/laparoscopic-perforated-cholecystectomy?qt-recent_blogs_articles=0

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[1] http://www.sydneygastricbanding.com.au