Spontaneous Perforation of Common Bile Duct in an Adult

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Abstract
Spontaneous perforation of common bile duct (CBD) is rare in adults. We report a 30 year old emaciated female patient who presented with biliary peritonitis. Exploratory laparotomy was performed and diagnosis was based on exclusion by ruling out other causes of biliary peritonitis.

Introduction
Spontaneous perforation of CBD is uncommon in infants and rare in adults. The presumed etiology may be developmental weakness of CBD wall, ischaemic damage of the CBD due to thrombosis of the supplying blood vessels or pressure necrosis due to impacted calculus.

Case Report
A 30 year old female presented with marked pain in abdomen, high grade fever with chills and progressively increasing jaundice since 12 days. General examination revealed marked tachycardia, tachypnoea, fever and icterus. Per abdomen examination showed features suggestive of peritonitis. Haematological examination revealed marked leucocytosis, hyperbilirubinaemia (total bilirubin-6.4 mg% and direct bilirubin-4.1 mg%) and hyperamylasemia. Erect X-ray of chest did not show free gas under diaphragm. Preoperative CT scan of abdomen showed a normal pancreaticoduodenal region with moderate ascites with internal echoes which on aspiration was bilious. The patient was taken up for an emergency laparotomy. On exploration there was gross biliary contamination with 800 ml of bile. The lesser omentum was edematous and friable and duodenum was densely adherent to CBD. Gall bladder was thin walled and distended without any evidence of cholecystitis or perforation. Pancreas and duodenum were normal. A diagnosis of sealed perforation of CBD was made and a cholecystostomy was performed as a biliary drainage. Post operative course was uneventful. Hyperbilirubinaemia subsided within 7 days. A cholecystocholangiogram done at 2 weeks showed a normal flow of contrast into the duodenum. Patient is asymptomatic at 5 months follow up.

Discussion
Spontaneous perforation of CBD is a rare entity in adults and uncommon in infants.1 Acute perforation of the bile duct occurs typically in infants between 2 - 6 weeks of age. The perforation is always found at junction of cystic duct and CBD which supports the suggestion of an area of developmental weakness.2 Obstruction with inspissated bile has been demonstrated in several of the affected infants and is a likely cause of high intraluminal pressure.3 The clinical picture may be insidious or acute onset. The former is more common and is characterised by progressive obstructive jaundice, abdominal distention, vomiting and signs of fulminant biliary peritonitis. A wide variety of hypothesis in adults have been reported such as thrombosis of mural vessels leading to ischaemic damage of CBD wall or pressure necrosis of the CBD due to impacted calculus and perforation of diverticulum.4 Recommended treatment is biliary decompression with T-tube drainage of CBD. A cholecystostomy may be performed if dense...
adhesions are present in the region of CBD. A gall bladder flap may be applied over the perforation if it is large and friable along with T-tube biliary drainage. If ductal disruption is severe, a Roux en Y hepaticojejunostomy may be contemplated.

References

TREATMENT OF RHEUMATOID ARTHRITIS : WE ARE GETTING THERE
Golimumab, a new tumour necrosis factor α (TNFα) inhibitor, from a double-blind randomized trial in patients with rheumatoid arthritis who had discontinued use of at least one TNFα inhibitor previously.

Current treatment for new patients usually begins with methotrexate. The dose is increased from 7.5-10.0 mg to 20-25 mg a week to achieve maximum response within 3-6 months. Nonetheless, about 30-40% of patients do not have a satisfactory response to initial treatment with methotrexate and other disease-modifying antirheumatic drugs. The usual next step is to add a biologically derived drug to methotrexate. Currently, four biologically derived drugs – in chronological order of approval in the USA, etanercept, infliximab, adalimumab, and abatacept – are candidates for this first-line biological therapy. 20-30% of patients continue to have active disease. Even in those patients with good control initially, either with methotrexate alone or in combination with a biologically derived drug, some will later lose this favourable response. The question then is which biologically derived drug next?

One advantage of golimumab is its once a month dosing, which might appeal to some patients. For those patients who have failed or had an inadequate response to etanercept, infliximab, adalimumab, or abatacept, golimumab might be a good option.