Letters

CHOLECYSTOSTOMY FOR ACALCULOUS CHOLECYSTITIS WITH HAEMOBILIA IN A LUNG TRANSPLANT PATIENT; A CASE REPORT.

Editor,

We report on a 64 year old gentleman who developed an early broncho-pleural fistula following a double lung transplant for end-stage COPD/Bronchiectasis and was transferred to his referring institution for palliative management.

Ten weeks post-transplant, the patient developed sudden-onset severe epigastric/right upper quadrant abdominal pain. He was tachycardic, normotensive, and had a palpable tender mass in the right hypochondriac region. Blood tests revealed an elevated white cell count and an acute derangement of his liver function tests.

Urgent Computed Tomography (CT) scan of chest, abdomen and pelvis showed a distended gallbladder of mixed attenuation with no peri-inflammatory changes as shown in Figure 1. There was no previous history of gallstones and no gallstones were seen in imaging.

Fig 1. CT scan of abdomen demonstrating a distended gallbladder of mixed attenuation with no peri-inflammatory changes

Due to the critically ill nature of the patient, an urgent percutaneous cholecystostomy was undertaken by ultrasound guidance and a pigtail catheter inserted, which drained a mixture of bile and blood. He was empirically treated with Tazocin (Piperacillin and Tazobactam) 4.5g three times a day.

CMV Polymerase Chain Reaction analysis was positive for both serum and bile and a diagnosis of CMV acalculous cholecystitis with haemobilia was established. The patient was treated with intravenous ganciclovir for 25 days followed by 18 days of oral valganciclovir. T-Tube cholangiogram 2 weeks following initial insertion demonstrated no flow out of the common bile duct into the duodenum. A Magnetic Resonance Cholangiopancreatography (MRCP) scan (with a view of proceeding to ERCP) demonstrated a normal biliary tree, but showed debris in the gallbladder suggestive of post-haemorrhagic components. A repeat T-tube cholangiogram one week later showed an obstruction at the gallbladder neck. This was managed with two instillations of 25000I/U of streptokinase into the cholecystostomy drain 12 hours apart. Repeat T-tube cholangiogram following this demonstrated normal flow of contrast through the common bile duct into the duodenum. The pig tail drain was subsequently removed (day 42) and the patient made a good post-procedure recovery.

CMV infection is common in transplant patients and develops in 3 ways: primary infection (transmission from a seropositive donor allograft to a seronegative recipient), reactivation of latent infection (CMV resembles other members of the herpesviridae in establishing latent infection and so immunodeficiency predisposes to reactivation of CMV) and re-infection (donor-transmitted infection superimposed on reactivation of latent infection). CMV can affect almost any organ system, with infection of the gastrointestinal tract being the most common manifestation of tissue-invasive CMV. It is a rare cause of acalculous cholecystitis in immunocompromised patients with human immunodeficiency virus, and has been reported in patients following solid organ transplant.

Ganciclovir remains first-line treatment for CMV disease, given at a dose of 5mg/kg twice-daily (dose-adjusted for renal impairment). As the drug has no hepatobiliary excretion, drainage of the gallbladder is mandatory. Treatment duration is patient-specific and should be based on virologic and clinical improvement.

The management of critically ill patients who develop cholecystitis is complex, with percutaneous cholecystostomy an option in the critically ill patient and in patients who are at high risk of general anaesthesia. The procedure allows immediate decompression and drainage of an acutely inflamed gallbladder and can either be used as a temporary bridging measure or as definitive management.

This case is unique in that there are no previous reports of acute CMV cholecystitis developing following lung transplant, and because, as the patient was not fit for cholecystectomy, he was managed with percutaneous cholecystostomy. This case emphasises the usefulness of percutaneous cholecystostomy in the critically ill patient who is unsuitable for surgery.

The authors have no conflicts of interest.

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DIALYSIS RELATED AMYLOID ARTHROPATHY ON 18FDG PET-CT

Editor,

A 60 year-old male patient with end stage kidney disease secondary to Alport syndrome presented with worsening swelling and pain in both shoulders. He had been on regular haemodialysis for 20 years, having had two failed renal transplants previously and had renal amyloidosis confirmed on renal biopsy. Radiographs of the shoulders showed evidence of an erosive arthropathy affecting the glenohumeral and acromioclavicular joints without significant degenerative change (Figure 1). In view of advanced renal failure and contraindication to MRI, a PET-CT scan was performed with 18-fluorodeoxyglucose (18FDG) to assess for amyloid involvement in the shoulders. This demonstrated periarticular radiotracer uptake in both shoulder joints with greater involvement on the left, compatible with bilateral amyloid arthropathy in the shoulder joints (Figure 2).

Amyloidosis is characterised by extracellular deposition of protein and protein derivatives. The disease becomes clinically significant when its diffuse form affects organ function or when local deposition creates a mass. Our patient had dialysis-related amyloidosis (DRA) which is a well recognized complication in patients on long-term dialysis.1,2 Amyloid deposition with β2-microglobulin has high affinity for collagen and predominantly affects the osteoarticular system.3, 4 DRA is clinically manifested by an erosive and destructive osteoarthropathy particularly in the form of scapulohumeral periartthritis, carpal tunnel syndrome, bone cysts, spondyloarthropathy and pathologic fractures.1 As histopathological confirmation is not always possible and because increased serum β2-microglobulin levels are not diagnostic, the diagnosis is often made by imaging. Diagnosis is essential to prevent more serious complications such as pathologic fractures.

Plain radiography may demonstrate advanced DRA findings such as bone erosions and cystic lesions, but it is not sensitive in the demonstration of early changes and can also underestimate the extent of the disease. Ultrasound can be helpful in the detection of amyloid deposition in the periarticular soft tissues. CT and MRI are useful for the detection of lesions especially in the non-axial skeleton.1 On MRI, amyloid arthropathy typically demonstrates homogenous low-to-intermediate signal intensity on both T1 and T2-weighted images, and there can be high T2 signal in areas of cystic change. Periarticular amyloid may

Fig. 1. Anteroposterior radiograph of the right shoulder showing erosions affecting the coracoid process, humeral head and acromioclavicular joints. The glenohumeral joint space is preserved with no subchondral cystic change present.

Fig. 2. (A) Fused axial 18FDG-PET/CT image demonstrating periarticular radiotracer uptake in both shoulder joints with greater involvement on the left. (B) Coronal maximum-intensity projection 18FDG-PET/CT attenuation corrected image demonstrating FDG uptake in the periarticular regions (arrows) consistent with amyloid arthropathy.