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AN UNUSUAL GASTROINTESTINAL COMPLICATION FOLLOWING HEART TRANSPLANTATION.

Editor,

A 29-year-old man underwent uncomplicated cardiac transplantation for advanced heart failure secondary to hypertrophic cardiomyopathy. Nine days post-operatively he required aggressive escalation of immunosuppression for 3 days with methylprednisolone due to an episode of severe cell-mediated rejection which promptly resolved. A routine chest radiograph a further 6 days later unexpectedly demonstrated free sub-diaphragmatic air. On subsequent assessment he admitted to only very mild abdominal discomfort. On examination his abdomen was distended and tympanic with active bowel sounds and no signs of peritonism. Inflammatory markers and lactate were normal. Due to concern regarding the possibility of gastro-intestinal perforation secondary to high dose steroid therapy an abdominal CT scan was undertaken. This confirmed the presence of pneumoperitoneum and also demonstrated extensive gaseous infiltration of the bowel wall and the omentum from the caecum extending as far as the distal descending colon with sparing of the sigmoid (Figure 1a and b) in keeping with a diagnosis of pneumatosis intestinalis. There was no radiological evidence of bowel ischaemia. Cytomegalovirus was not detected in blood or faeces. He was managed conservatively with 5 days of intravenous amoxicillin and metronidazole with complete resolution. He remains well 1 year later.

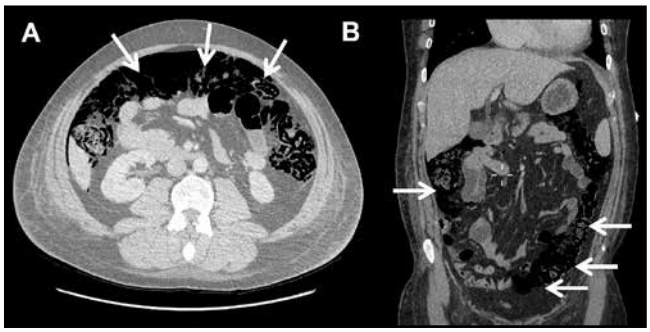

Fig 1. Axial (1A) and coronal (1B) views from a contrast computed tomography scan of the abdomen demonstrating extensive pneumatosis intestinalis of the large bowel. The dark areas (arrowed) represent extensive submucosal gas.

Pneumatosis intestinalis is a radiological diagnosis and occurs when the gastrointestinal wall becomes disrupted and infiltrated by intra-luminal gas[1]. It can have a benign or life-threatening course, largely dictated by the underlying aetiology, and has a reported association with a variety of conditions including bowel ischemia, intestinal obstruction, inflammatory bowel disease, connective tissue disorders and chronic obstructive pulmonary disease[2]. It is best diagnosed with CT and has rarely been reported following renal, lung and liver transplantation[2] and even less so following heart transplantation[3]. It has been speculated that pneumatosis intestinalis in the post-transplant setting may be related to multiple effects of immunosuppression including hyperactivity of the colonic flora as well as steroid-induced atrophy of Peyer patches and the gastro-intestinal mucosa with consequent invasion of the submucosa by intra-luminal gas[4]. From the limited literature regarding post-transplantation pneumatosis intestinalis, the large bowel seems to be more commonly affected than the small bowel and the majority of cases fully resolve with careful monitoring and conservative management alone[3,5]. Our patient had required prolonged treatment with high dose methylprednisolone due to an episode of allograft rejection which was the likely a major causative factor. This case reduces the paucity of literature on a rare complication of heart transplantation. It appears to be associated with a benign course in the majority of cases; however, care must be taken to exclude the coexistence of more malignant processes underlying this presentation, such as cytomegalovirus related colitis, in post-transplant patients.

Keywords: heart transplant, immunosuppression, pneumatosis intestinalis

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BIRTH RATE MAY INCREASE NINE MONTHS AFTER NATIONAL FOOTBALL SUCCESS

Editor,

We noted an increase in referrals to prenatal genetic clinics