consisted of chemoradiation therapy in the following manner: Two cycles of Paclitaxel (Taxol®)-Carboplatin followed by Paclitaxel-Carboplatin with radiation therapy (XRT) to the GE junction for six weeks followed by maintenance Folinic Acid-Oxaliplatin-Fluorouracil (FOLFOX 6) every two weeks. Drug dosing was modified in accordance with complete blood count (CBC) results. Serial PET scans were performed to assess efficacy, showing a range of complete absence of abnormal ^{18}F-FDG uptake to occasional uptakes in various locations with mild to moderately elevated maximal SUV units. At present, the patient is alive with a good QOL approximately 3.5 years from LVAD implantation and 3 years from esophageal cancer diagnosis.

Results and Conclusions: Multi-disciplinary therapies were instituted to treat two lethal conditions: end-stage heart failure and advanced esophageal cancer. The combination of medical therapy with chemotherapy, interventional therapy with radiation, and surgical therapy with an LVAD proved efficacious in this otherwise fatal case. As more patients with end-stage heart failure are implanted with LVADs - particularly for DT - the likelihood of non-cardiac conditions will undoubtedly appear cancer among them. The challenge will be to determine how to best approach these conditions. This case illustrates the power of a collaborative approach in the management of this complex problem.

Take home message: The use of the implantable LVAD has enabled patients with end-stage heart failure to live longer and with an improved QOL. As a result of not dying from heart failure, some patients will experience serious non-cardiac conditions including cancer. With the growing number of DT-LVAD patients worldwide, it will be imperative for healthcare providers to address the treatment of these maladies utilizing a multi-specialty approach.

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A rare cause of small bowel obstruction which should always be considered

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Introduction: Appendicitis has been known to cause acute small bowel obstruction through mechanical and physiological interactions with the ileum. Here a 52 year old male, who, following 3 days of lower abdominal pain, bowels not having opened and vomiting was found on computed tomography (CT) scan to have a mechanical small bowel obstruction. This was operated on via lower midline laparotomy and adhesiolysis. An inflamed appendix was found to have wrapped itself around the terminal ileum causing a focal stricture. After appendectomy the patient was discharged 6 days later and made a full recovery.

Case description: A 52 year old man with a past history of GORD, hypertension and peripheral vascular disease (with aorto-bifemoral bypass) was admitted onto our Surgical Triage Unit (STU) at 22:10 on a Thursday evening. He complained of a 3 day history of illness consisting of cramping lower abdominal pain, bowels not having opened and recurrent bilious vomiting.

Results and Conclusions: An urgent CT scan reported “High grade small bowel obstruction, with change of calibre in the distal ileum. This may be secondary to adhesions (previous bilateral femoral bypass) or internal hernia. Incidentally, the appendix also looks inflamed. No perforation or intra-abdominal collections.” At laparotomy, the appendix was inflamed with free pus in the peritoneal cavity and dilated small bowel loops in the vicinity. On closer inspection it could be seen that the inflamed appendix had wrapped itself around the terminal ileum stenosing its lumen and causing the small bowel obstruction.

Take home message:

- Always consider a concurrent appendicitis in cases of small bowel obstruction
- Do not exclude an appendicitis in cases of left sided abdominal pain as was the case here
- If suspected consider performing computed tomography before proceeding to surgery
- The co-existence of these two pathologies may alter operative approach

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Diverticulitis: An atypical presentation

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Introduction: Diverticulitis is a well described inflammatory condition of the wall of the gastrointestinal tract with an overall prevalence of 2-10% in developing countries. Typically, the descending and sigmoid colon are affected more commonly than the ascending colon and small bowel in the Western population. Diverticula of the distal ileum are particularly uncommon, with a reported rate of 0.06-1.3% (Jeong et al. 2014). Due to difficulty in pre-operative diagnosis, there is no consensus on therapeutic strategy for right-sided diverticulitis (Lee et al. 2010). Here, the authors present a case of non-Meckel's diverticulitis of the distal ileum in a Caucasian U.K. patient.

Case description: A 63 year old man presented to the Emergency Department with a one day history of abdominal distension, periumbilical pain radiating to the right iliac fossa, nausea and sweats. He had not defecated for 2 days but reported passing flatus. Past medical history included gout, rheumatoid arthritis and Ulcerative Colitis, managed with Sulfasalazine. He was not a smoker.

On examination, abdomen was visibly distended. There was maximal tenderness in the lower central abdomen and guarding to palpation. Digital rectal examination was normal. Chest radiograph was unremarkable. Plain abdominal film showed faecal loading of the colon, but no obstructive features. C-Reactive Protein (CRP), amylase and white cell count on admission were normal. On repeat testing, CRP was 208mg/L, white cell count $10x10^9$/L, venous lactate 2.3mmol/L and haemoglobin 13.1g/L.

Intravenous fluids and broad spectrum antibiotics were commenced. CT imaging was arranged in view of the severity of symptoms, biochemical findings, patient's age, medication and history of colitis. CT abdomen pelvis with oral contrast showed a severely inflamed ileal diverticulum. There was no suggestion of a diverticulum on previous radiological or endoscopic investigations. The patient proceeded to surgery for open resection of perforated diverticulum (39cm of ileum) and small bowel anastomosis.

Results and Conclusions: After 24 hour High Dependency observation, the patient made an uneventful recovery. Histological analysis confirmed a thin-walled, diffusely ulcerated, perforated ileal diverticulum resulting from obstructing food.

Anatomically, diverticula are characterised by herniation of mucosa and submucosa through the muscular bowel wall and a true diverticulum should involve all layers. Diverticula of the small bowel are more commonly proximal (75% jejunal, versus 5% ileal). The position, conversely to a Meckel's diverticulum, is usually on the mesenteric side of the bowel. The aetiology of jejuneo-ileal diverticula is not fully understood however focal muscular weakness, motility dysfunction, high segmental intraluminal pressure and biogenetic factors are believed to contribute (Nakatani et al. 2016).

There is close clinical and biochemical overlap between a presentation of appendicitis and right sided diverticulitis. However, previous studies have suggested subtle clinical variations to aid their distinction, such as duration

of onset, location or migration of pain and severity of systemic response (Lee et al. 2010). The use of ultrasonography and CT to aid diagnosis has been advocated, which may show bowel wall thickening, peri-colonic fat infiltration, extra-luminal air or abscess. Compared to duodenal, small bowel diverticula are almost 4 times more likely to perforate (Nakatani et al. 2016).

Take home message: Although less common than appendicitis, diverticulitis of the ascending colon or terminal ileum should be considered in patients presenting with right iliac fossa pain. Limited small bowel resection and anastomosis or diverticulectomy is a safe surgical method to use in some cases of ileal diverticulitis. Many cases of uncomplicated small bowel diverticulitis may be treated conservatively without requiring operative intervention. Thus accurate and early diagnosis, aided by radiological imaging can ensure appropriate clinical management and avoid unnecessary surgery and its associated risks for patients presenting with acute, uncomplicated small bowel diverticulitis.

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Graft aneurysm as long-term complication of a polyester prosthesis and its adequate management - short review based on a systematic review of literature and a representative case report

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Introduction: A material-associated true aneurysm after previous use of a vascular prosthesis for arterial reconstruction mostly in peripheral arterial occlusion disease (PAOD) is considered a rare but serious complication.

Case description: A 49 year old male patient underwent several sequential steps of arterial recanalization/reconstruction because of PAOD, stage IIb (walking distance, < 100m) according to local findings with endovascular measures and vascularsurgical bypass implantation by means of a femoropoliteal P1-prosthetic bypass at the right and left leg (the right distal prosthetic segment was extended with a venous bypass to the P3-segment because of a distal suture aneurysm and arterial thrombosis of the right calf. After 10 years, a true prosthetic aneurysm was diagnosed at the right thigh using Duplex-ultrasonography and complementary MR-angiography. It was successfully treated with a femoro(prosthetico)-infragenual 6-mm-Gore®-Propaten® bypass (W.L. Gore, Putzbrunn, Germany) down to the P3-segment of the right popliteal artery. Nineteen articles were found in the literature search, which had been published since 1995. Most frequently, pseudoaneurysms of knitted polyester prostheses at the femoropopliteal segment occurred after approximately 12.91 years in average. In one third of cases, 2 ore more aneurysms of dacron prostheses were described. Histological and electromicroscopic investigations revealed mainly breakings of filaments and foreign body reactions. In more than half of the patients, the aneurysm was resected and for reconstruction, an interponate was implanted. Complete removal of the prosthesis and endovascular therapy were only 2nd choice.

Results and Conclusions: Development of true prosthetic aneurysms has not been satisfyingly clarified yet. It belongs to the late complication profile - even it occurs rarely - and should be controlled after a postoperative interval of one decade if the arterial recanalization/reconstruction was performed using prosthetic material after previously - in the sequential approach - endovascular intervention and venous bypass could not be used.

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Minimally invasive direct coronary artery bypass and TAVI: Timing and considerations in octogenarians: A case report

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Keywords: Minimally invasive direct coronary artery bypass; TAVI; Coronary revascularization; Pacemaker; Case report

Introduction: Coronary artery disease is frequently associated with aortic stenosis. Using minimally invasive direct coronary artery bypass (MIDCAB), we conducted a single bypass of the LAD using the LIMA on an 87-year-old patient with TAVI-prothesis and pacemaker. This case report describes the procedure for our rather special patient, from intake to discharge.

Case description: A 87-year-old male was admitted to our hospital due to NONSTEMI. Surgical history included TAVI Corevalve® endoprothesis (81y.o.) and BIOTRONIK pacemaker for left bundle branch block. We opted for minimally invasive direct coronary artery bypass (MIDCAB) using the Da Vinci® Robot System. There were no adverse events in the postoperative period. Patient was discharged on the 8th postoperative day. Several questions arose while treating our rather complex patient: what is the optimal timing for revascularization after TAVI and what method of revascularization should be used?

Results and Conclusions: We consider TAVI followed by MIDCAB as a feasible approach for these complex patients. It is potentially beneficial regarding blood loss and hospital stay. The staged approach avoids many risks described in literature. Research is needed to support this intuitive assumption; the effect of TAVI on coronary hemodynamics on the long term as well as comparing combined and staged TAVI-MIDCAB could be interesting subjects for further investigation.

Take home message: A staged minimal invasive procedure with TAVI and followed by MIDCAB might be beneficial in octogenarians.

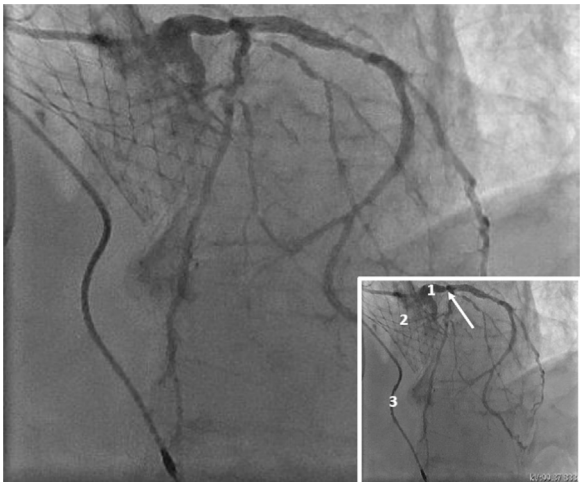

Figure 1: Coronary angiography of the left coronary artery. 1: Left main stem. 2: TAVI Corevalve. 3: Pacemaker wire. Arrow indicates targeted stenosis.