

## CLINICAL CASE

## STRANGE CARDIAC COMPLICATION AFTER MEDIAN EVENTRATION SURGERY

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**Abstract**

*A 51-year old patient comes to the hospital complaining of 20-30 bowel movements every day and abdominal pain following the introduction of a new medication for his cardiological problems (notably aspirine). His relevant medical history shows antecedents of haemorrhagic recto-colitis, non-stented coronaropathy and a colectomy performed more than 10 years before. The diagnosis was simple to make following laboratory, imagistic and clinical investigations – pouchitis and median eventrations following the prior surgery. The real problem appeared the next day following his eventration cure – cardiac tamponade in the context of antiplatelet medication. The patient was successfully managed by the cardiothoracic surgeons. An intracardiac foreign body was found and eliminated during the intervention. Taking into consideration the fact that the patient had been taking antiplatelet medication for almost a month, it is very likely that the foreign body had migrated there during or after the corrective surgical procedure for the eventration and created the hemopericardium in this particular context.*

**Keywords:** tension pneumothorax, tension gastrothorax, vicerthorax, pregnancy**Introduction**

Patients who suffer from chronic diseases will eventually experience complications and will be in need of special treatment throughout their lives whether they comply to the treatment or not. This fact is even more accurate for diseases where the treatment is not well-known or where the available options for our patients do not at least control the disease to the extent where severe complications can be prevented. One of these pathologies is ulcerative colitis, a chronic disease that affects a variable part of the large intestine characterized by a diffuse process of inflammation that affects exclusively the mucosal layer. In 95% of all cases the rectum is

also touched. Treatment options range from topical therapy (for the descending colon) to aminosalicylates, nicotine, corticosteroids, immunomodulation therapy (infliximab), thiopurines to radical surgical approaches such as the total colectomy [1]. Eventrations are one of the post-operative risks for any abdominal-related surgery. They have been a subject of concern and research for surgeons since the first laparotomies were performed. After tens of years of research and observations, some risk factors appear to be of a greater importance in the incidence of abdominal wall eventrations: inflammation, low protein levels, increased postoperative intraabdominal pressure [2]. Non-steroidal anti-inflammatory medications

(NSAIDs) and Aspirin are a convenient treatment for most patients suffering from a wide area of inflammatory diseases because of their low cost, popularity and effectiveness. Aspirin is the drug of choice for patients with coronary artery disease if their general status and comorbidities do not contraindicate its administration [3].

A patient prone to inflammation, having a delicate cardiological status, many associated comorbidities (such as arterial hypertension, dyslipidemia, a very high pack-year score) and taking antiplatelet medication is though to manage especially in a surgical context. The already delicate homeostasis can be disturbed by any of the associated risk factors.

Intracardiac foreign bodies are not a day-to-day finding in general or specialized medical practice. They can be iatrogenic (catheter fragments, needles, migrated stents, pace-maker electrodes, orthopaedic cements etc.), self-inflicted (needles) or accidental (bullets). Their retrieval is complicated and should be considered when the object is between 5-10mm, when it is irregular or when the patient is symptomatic. However, asymptomatic intracardiac foreign bodies do exist and, if discovered, can be managed with non-surgical methods such as close follow-ups, anticoagulation medication and antibiotic prophylaxis [4].

The clinical exam revealed a generally stable, afebrile patient with signs of epigastric peritoneal irritation. Laboratory investigations showed a CRP level at 40, 12.000 leucocytes/mm<sup>3</sup>, normal renal function and ionogram. The abdominal CT showed signs of pouchitis and multiple median eventrations.

The surgical management of his median eventrations was performed the next day with a good outcome, the patient being stable following the procedure. In the evening though he was admitted in the Intensive Care Unit following an episode of respiratory distress with orthopnoea, tachycardia and high blood pressure. Laboratory tests showed an acute kidney failure and the ECG proved the tachycardia. The thoracic CT showed a pericardic effusion (Figures 1,2,3) while the cardiac echography showed an aspect of „swinging heart”. The patient was transferred to the operating theatre for the pericardial drainage and transfusion of platelets concentrate. 500mL of blood were drained from the pericardium and a superficial epicardic laceration was seen and considered to be caused by an intrapericardial foreign body found during the procedure. It is believed that the intracardiac foreign body had migrated during or after the previous operation and created the whole cardiac tamponade episode in the context of our patient's antiplatelet treatment. The patient recovered excellently after the two surgical interventions.

## Case presentation

A 51-year old patient comes to the hospital accusing 20-30 bowel movements every day (at least 10 of them being during the night) and abdominal pain in the median area. The symptoms had started almost a month before along with the introduction of medication for his non-stented cardiopathy (notably aspirine) and had gradually worsened in time. His medical history reveals antecedents of ulcerative colitis (diagnosed in 2004), arterial hypertension, non-stented coronaropathy, dyslipidemia, rheumatoid poliartthritis, chronic rhinosinusitis, gastro-esophageal reflux and psoriasis. The only surgical antecedent is a colectomy performed in 2005 following an episode of severe acute colitis. He used to be a heavy smoker with a pack-year level estimated at 50.

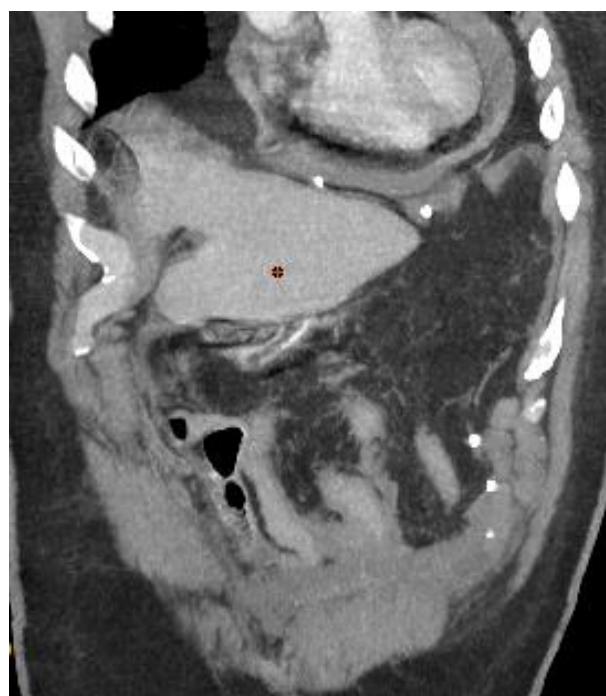
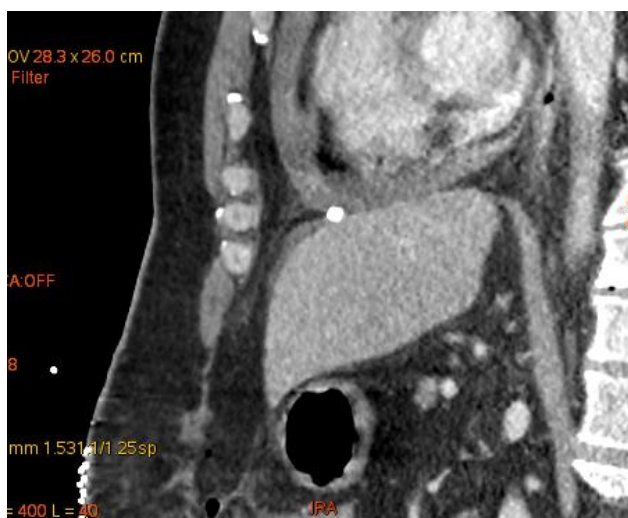


Figure 1 – CT exam showing pericardic effusion



**Figure 2 - CT exam showing pericardic effusion**



**Figure 3 - CT exam showing pericardic effusion**

## Discussions

Medicine is a vast domain in a continuous development and improvement. Every day new discoveries are made and the pressure to be on point with all the new guidelines has taken its toll on medical professionals worldwide. Overspecialisation and the tendency to see not the patient as a whole, but separate systems and organs has pushed medicine into an era where examining him from head to toes will be obsolete in a few years. Regardless, the human body functions through connections between all systems and every detail or change can influence the final outcome.

Our patient has suffered cardiological complications following an abdominal surgical intervention in a context of being treated with aspirine for a month before, an inflammation-prone terrain and multiple comorbidities. Even though the abdominal eventration was managed excellently, his associated diseases and

comorbidities have had a huge influence in the outcome of the case. Migration of foreign bodies from the abdomen to the heart is a very rare phenomenon that can remain unnoticed if the patient is asymptomatic. Our patient symptomatology appeared because of the foreign body, but in the context of a complex health state.

## Conclusions

We would like to underline the need for an overall head-to-toe assesment of our patients in this era of over-specialisation. Every piece of information counts and can influence the evolution of the case towrds a negative path. Pathologies that seem easy to manage can be complicated by outside factors that may not seem as aggressive in the first place. The chance of having cardiac complications (particularly cardiac tamponade) following treatment with antiplatelets (notably aspirine) is relatively low but having an overlapping causative agent will most likely start a cascade of unfortunate events.

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