Letter to the Editor

Arterial thromboembolism from aortic floating thrombus in a patient with Crohn’s Disease

Dear Sir,

We report the case of a 56-year-old smoker woman who was admitted to our hospital because of an exacerbation of CD from which she had suffered for 2 years. The patient was taking azathioprine 50 mg three times daily. Physical examination showed that her abdomen was distended and painful. Laboratory testing showed a blood cell count of 10.2 × 10^9/L, platelet count of 382 × 10^9/L, haemoglobin of 13.2 g/dL and fibrinogen of 1077.92 mg/dL. X-rays revealed dilated bowel loops. Coagulation and laboratory workup for factor V Leiden and prothrombin G20210A were normal.

She was treated with absolute fasting, intravenous antibiotics and no corticosteroids were administrated because she had a history of vertebral fractures due to these drugs.

One day after admission she suddenly developed pain and paraesthesia in her left arm secondary to arterial thrombosis. Contrast-enhanced helical CT showed a floating thrombus superimposed on atheromatous plaque in the aortic arch, in the left subclavian artery and a filling defect was noted in the axillary artery. Coagulation and laboratory workup for factor V Leiden and prothrombin G20210A were normal.

She was treated with absolute fasting, intravenous antibiotics and no corticosteroids were administrated because she had a history of vertebral fractures due to these drugs.

Because of worsening of abdominal symptoms, a new helical TC was made, showing a thrombus in the left iliac artery and the presence of a fluid collection with air in pelvis suggesting a bowel perforation. The patient was taken to urgent surgery where ileal perforation was confirmed and surgical drainage of the abscess, followed by the resection of the diseased portion of the bowel and ileoceleal anastomosis was performed. Irreversible ischemia necessitated left upper limb amputation 72 h later.

Following the surgery the patient received full dose of intravenous heparin. Any further thromboembolic event happened under a continuous oral anticoagulation with acenocumarol. On a thorough follow-up examination fifteen days after admission the thrombi had disappeared. She was discharged on the twentieth postoperative taking mesalazine and acenocumarol.

Arterial and venous thromboembolic complications are often associated in the clinical course of IBD, being reported between 1% and 8% in different series. Prothrombotic risk factors in IBD patients could be acquired through activity of IBD, such as perforation, abscess and postoperative state, or inherited.

Such thrombophilic state has been reported in the literature associated with coagulation abnormalities including accelerated thromboplastin generation, increased concentration of factor V Leiden, factor II polymorphism (20210 G to A), elevated levels of CD40 ligand in platelets, factor VIII, and fibrinogen. Low antithrombin III concentrations, thrombocytosis, decreased platelet survival, and spontaneous platelet aggregation causing coagulation abnormalities have also been reported.

Arterial complications present much less frequently than venous thromboembolic episodes. AFT are even less frequent. It is associated with degenerative aortic pathologies like aneurysms, ulcerated atherosclerotic plaques, and dissection in elderly patients. Novacek et al. (2004) collected 12 cases of AMT, including 10 cases previously reported by other authors. More of the thrombi were localised in the distal abdominal aorta and only one in the aortic arch, increasing the risk of embolization in the upper abdomen.

Figure 1 Thrombus superimposed on atheromatous plaque in the aortic arch, in the left subclavian artery and a filling defect was noted in the axillary artery.
limbs. In our mind, our case is the second one described in this rare location.

In absence of thrombophilia, bowel perforation and abscess are the most probable causes of the arterial thrombosis. Seven patients of the above-mentioned series showed activity of IBD.

The outcome of arterial thrombi is variable ranging between a complete resolution without sequelae to amputation and even death. Vascular surgical procedures in these cases have a high incidence of postoperative thrombosis. This might explain re-thrombosis of the axillary artery following an apparently successful thrombectomy in our patient.

Treatment of aortic thrombi is unclear. Aortic thrombectomy may be unnecessary but indefinite anticoagulation is probably essential. In our case, the thrombi disappeared with anticoagulation therapy after surgery.

Figure 2  Presence of a fluid collection with air in pelvis.

References


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