Spontaneous common iliac artery thrombosis: An unusual cause of abdominal pain

Ralphe Bou Chebl, Shafeek Kiblawi, Michael Nauss

ABSTRACT

Introduction: Acute arterial thrombosis is a rare and life-threatening condition which requires urgent recognition and prompt treatment to prevent limb loss or death. It usually arises from an embolic event, but it has also been reported as an incidental finding in patients with active malignancies, or connective tissue disorders. We report an unusual presentation of idiopathic common iliac thrombosis and review the literature on this subject.

Case Report: Herein, we describe a case of a young healthy man who presented to our emergency department on two separate occasions with abdominal pain and was found to have left common iliac artery thrombosis.

Conclusion: Iliac artery occlusion is a very rare condition that carries very serious complications. Clinicians should have a high level of suspicion and should initiate therapy as soon as the diagnosis is confirmed to avoid any catastrophic sequelae.

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CASE REPORT

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Keywords: Idiopathic, Iliac artery, Thrombosis, Abdominal pain

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INTRODUCTION

Iliac artery thrombosis is a rare and limb-threatening condition requires urgent recognition and treatment to prevent amputation or death. Unrecognized, it can lead to limb ischemia, tissue necrosis and sepsis resulting in death. It usually arises from an embolic event. Less commonly, it has been reported as an incidental finding in patients with active malignancies, connective tissue disorders and in some post-surgical cases. We describe a case of a young healthy male who presented to our emergency department on two separate occasions with abdominal pain and was found to have left common iliac artery thrombosis.

CASE REPORT

A 29-year-old male presented to the emergency department with a chief complaint of abdominal pain. The pain had started ten hours ago and was progressing. It was not associated with any nausea or vomiting. He denied any bloody stools and reported that his last bowel movement was a few hours prior to presentation. Surgical history included an exploratory laparotomy for a gunshot wound to the abdomen in 2000. The patient was afebrile and his vitals were normal except for mild tachycardia. He had some mild peri-umbilical tenderness without any guarding or rebound tenderness, and his rectal examination revealed guaiac negative stool in the rectal vault. The patient was seen in our emergency department 24-hours prior to this visit for multiple vomiting episodes after he had consumed alcohol. His physical examination was normal and laboratory workup showed normal levels of liver enzymes, lipase and electrolytes and mild leukocytosis of 11,200 leukocytes/mm³. He was given two liters of intravenous fluids and 4 mg of ondansetron intravenously, and was discharged home after his symptoms improved and he tolerated oral intake. On

his second presentation, due to his worsening symptoms and the physical examination findings, a decision was made to obtain a computed tomography (CT) scan of his abdomen. His CT scan showed a focal thrombus within the left common iliac artery causing 50% luminal narrowing (Figures 1 and 2). The patient had intact palpable pulses in his bilateral lower extremities. Vascular surgery was consulted and he was admitted to the general practice unit where he underwent a Trans Thoracic Echocardiography and a CT scan of chest with contrast to rule out any cardiac and aortic embolic sources. He also had a complete hypercoagulable workup which included a factor V Leiden, protein C/S, anti-thrombin III, and a prothrombin mutation test, all of which were normal. He also had normal Ankle Brachial Indices (ABI) and toe pressures. The patient was started on heparin and was discharged home, pain free on coumadin 5 mg daily. He returned for follow-up in three months and had a repeat CT scan that showed complete resolution of his thrombus.

Figure 1: Coronal view of left common iliac artery thrombosis.

Figure 2: Transverse view of left common iliac artery thrombosis.

DISCUSSION

Common iliac thrombosis is a very rare but lethal condition. Unrecognized, it leads to acute limb ischemia, a devastating condition defined as a sudden decrease in limb perfusion that threatens the viability of the limb and causes extensive tissue necrosis [1, 2]. The incidence of this condition is approximately 1.5 cases per 10,000 persons per year [3]. It most likely arises from an embolization event in patients with valvular diseases, atrial arrhythmias or due to ventricular thrombi arising after a myocardial infarction whereas thrombotic obstructions are generally associated with a progression of an atherosclerotic plaque [4]. It has been described as an incidental finding in patients with active malignancies, connective tissue disorders and in some postoperative cases [5, 6].

Physical examination findings are characterized by a constellation of symptoms referred to as the six 'Ps' including a painful, pulseless extremity distal to the occlusion, a perishingly cold and pale extremity. The vascular compromise is often accompanied by some neurologic manifestations, notably some paresthesias and paralysis [7].

Patients presenting with symptoms suggestive of acute limb occlusion are evaluated with an imaging modality to locate the obstruction. Digital subtraction angiography (DSA) is regarded as the gold standard for limb ischemia imaging [2]. However, due to its lack of invasiveness, CT angiography has recently come into wider use [4]. It has been shown to be a reliable diagnostic modality with sensitivities ranging between 89–98% [8].

Acute limb ischemia is a very morbid condition, with rates of amputations ranging between 10–15%, and a mortality rate of 15–20% within one year of the presentation. Death is usually from the conditions that predisposed them to acute limb ischemia [2]. The treatment of an acute complete occlusion includes catheter-based thrombolytic therapy, mechanical thromboembolectomy or pharmacologic thrombolysis with agents such as tissue plasminogen activator (TPA) [9]. Patients presenting with an incomplete occlusion are usually with systemic anticoagulation and a medical workup investigating the cause of the thrombosis [2].

CONCLUSION

Common iliac thrombosis is a devastating and highly morbid condition that requires a high index of suspicion. It usually presents with symptoms of decreased perfusion to the lower extremity. There is no case in literature of unprovoked common iliac artery thrombosis presenting as abdominal pain. This case demonstrates that a vascular occlusive event should be on the differential and workup of patients presenting to the emergency department with abdominal pain.

Author Contributions

Ralphe Bou Chebl – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Shafeek Kiblawi – Acquisition of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Michael Nauss – Shafeek Kiblawi – Acquisition of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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