Acute type B Aortic Dissection Complicated by Acute Limb Ischemia: Case Report

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ABSTRACT
Acute type B aortic dissection can lead to acute limb ischemia which is of poor prognosis. The emergency is the revascularization of the limb. Several revascularization therapies are proposed and are constantly changing. We report a case of an acute limb ischemia revealing an acute type B aortic dissection treated surgically.

Key words: Aortic dissection, Limb ischemia, Surgery.

INTRODUCTION
Acute type B aortic dissection can lead to acute limb ischemia. Its management is a challenge. Although uncommon (5.7–30% of acute type B aortic dissection), acute limb ischemia is the most common presentation of malperfusion syndrome related to acute type B aortic dissection.1 This syndrome includes limb ischemia, visceral ischemia and medullar ischemia.2 When this syndrome occurs, it includes an exception for medical therapy in acute type B aortic dissection and requires an interventional treatment.2 In cases of acute ischemia, the emergency is the revascularization of the limb. Several revascularization therapies are proposed and are constantly changing. We report a case of an acute limb ischemia revealing an acute type B aortic dissection treated surgically.

Case Report
A 65 years old woman, without significant past medical history, admitted in the emergency unit with clear signs of acute right lower limb ischemia lasting three hours prior to admission. Blood Pressure on admission was 100/64 mmHg. She complained of some chest and abdominal pain preceding symptoms on her right leg: cyanosis, pallor, coldness and abolition of all pulse. The rest of cardiovascular examination was normal. The laboratory tests revealed functional renal failure. After care of the patient in emergency and early rehydration, an aortic and lower limb CT-Scan was performed and showed an aortic dissection extending from the left subclavian artery to the femoral arteries (Figure 1, 2), with occlusion of the right iliac artery (Figure 3). The superior mesenteric artery and right renal artery arise from the false lumen (Figure 4). Her condition prompted an urgent treatment for limb advanced ischemia, consisting on a femoro-femoral bypass with synthetic graft relieving her ischemia. After immediate surgery, she was transferred to intensive care unit and starting curative heparin treatment. She was clinically stable. Symptoms of ischemia have disappeared with reappearance of the pulse in right lower limb. A control CT-Scan showed good revascularization (Figure 5). Unfortunately, she died on day 7 post surgery, after presenting multiple organ failure due, probably, to thrombosis of superior mesenteric artery and right renal artery which arise from the false lumen.

DISCUSSION
Lower limb malperfusion constitutes 19–48% of complicated aortic dissections, and 50–73% of malperfusion syndrome. They manifest in 87% as acute ischemia, which may be bilateral in 56% of cases. They are more common in acute cases of aortic dissection.1 Aortic dissection can present in multiple ways and many aspects remain unclear. Literature review has not always reported aetiologies of aortic dissection (1); specifying aetiology could show a statistical association with this complication.
Figure 2: Reconstruction of Aortic CT-Scan showed the dissection.

Figure 3: Aortic and lower limb CT-Scan showed occlusion of the right iliac artery (red arrow) with dissection of the left iliac artery (yellow arrow).

Figure 4: Reconstruction of Aortic CT-scan showed different branches of the aorta.

Figure 5: Control Aortic CT-scan showed good permeability of femoro-femoral bypass.
CONCLUSION

Limb ischemia related acute type B aortic dissection is of poor prognosis. This is even more serious when certain factors are associated. Better understanding of these factors is necessary for clinicians to estimate the risk of in-hospital death. This could permit an intense monitoring of these patients, good timing intervention and possible prognosis improvement of the patients.

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CONFLICT OF INTEREST

Nil

REFERENCES
