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Ruptured Aortic Ulcer (Case Report)

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1. Abstract

1.1. Introduction:
A the rosclerotic penetrating ulcer (PAU) is a pathological condition characterized by the formation of an ulcerative lesion in the aortic wall.

1.2. Case report:
UPA presented to a 78-year-old female patient with hypertension, diabetes, heart disease, and a history of malignant breast neoplasia.

1.3. Report of the Procedure:
Puncture using the Seldinger technique of the femoral artery for the correction procedure.

1.4. Conclusion:
Minimally invasive interventions have gained ground invasive interventions have gained ground in recent decades, with the endovascular technique with endoprosthesis implantation being the most used for correcting aortic ulcers.

2. Introduction

Penetrating the roscleroticulcer (PAU) is pathological condition characterized by the formation of an ulcerative lesion rativ lesion rativ lesion in the aortic wall, starting in the intima layer and progressing to the elastic lamina and medial layer (Oderich, G.S et al, 2019). UPA makes up “acute aortic syndrome” (AAS), together with aortic dissection, intramural hematoma (IMH)and aortic trauma with intimal laceration (Nienaber, C. Aetal, 2012). It’s A rare condition ,but potentially fatal, due to its complications. With the penetration of blood between the middle layer and the adventitia, it can cause intramural hematoma and aortic dissection, saccular aneurysmal degeneration, adventitial pseudoaneurysm and, in more serious cases, the rupture of this last layer, therefore the rupture of the aorta (Patatas, K, 2012) . This work aims to report the case of an adventitial pseudoaneurysm resulting from a ruptured aortic ulcer patched with end ovascular treatment.

3. Case Report

Femal epatient, 78 years old, hypertensive, diabetic, with heart disease, history of malignant breast neoplasm previously submitted to quadrantectomy, cholecystectomy due to cholelithiasis, denies smoking, continuously using Escitalopram, anastrozole, rosuvastatin, metformin, olmesartan, amlodipine, metoprolol, spironolactone, methyldopa, clopidogrel, vitamin D, pantoprazole. Referred as an outpatient with a diagnosis of saccular aortic aneurysm. Patient without abdominal or thoracic pain complaints, was in good general condition, flushed, hydrated, normotensive, eupneic, underwent abdominal tomography with contrast due to oncological follow-up with finding: Saccular dilation measuring 35x23x21 cm in diameter on the left anterolateral wall of the abdominal aorta infrarenal, 22 mm from the bifurcation, thrombosed, with a small ulcer measuring 4.5mm (Images 1and2). Iliac Arteries Were Patent And Without Stenosis, with report of saccular aneurysm. The examination was evaluated by the team, noting that it was in fact an aortic ulcer, with the formation of a pseudoaneurysm. Endovascular intervention was chosen.

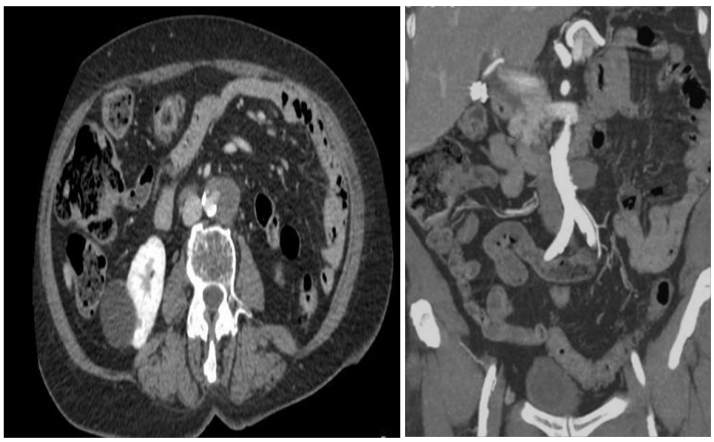

Image1and 2: Abdominal Tomography with Contrast.

4. Procedure Description

Puncture Using the Seldinger technique of the common femoral artery bilaterally using 6F sheath. Passageofa0.035”x260cm hydrophilic guidewire+5frcentimeter pigtail catheter in the right common femoral

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artery + image acquisition under fluoroscopy. Previous abdominal aorta, showing infrarenal aortic stenosis associated with posterior blurring in the distal region suggestive of bleeding (Image 3).

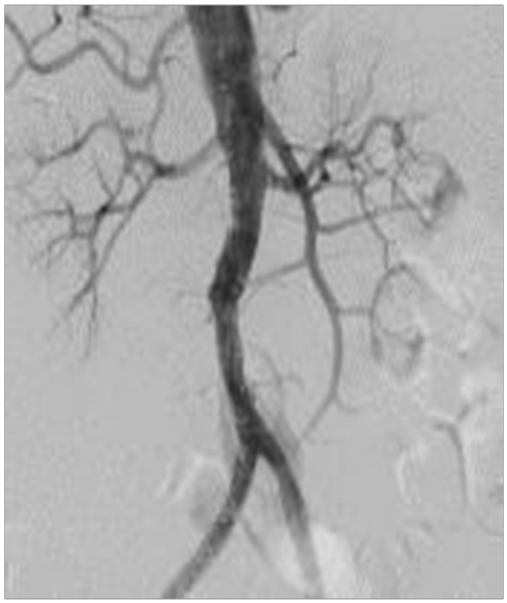


Image 3: Pervious Abdominal Aorta.

Right and left common iliac arteries patent. Patent renal arteries. Exchange of the 6f introducer for 10F in left femoral access. The 0.035" hydrophilic guidewire was exchanged for a 0.035"x 260cm Lunderquist wire in the right femoral access. 6F introducer removed from right femoral access. PassageoftheAdvantaV1212x61mm balloon-expandable stent released in the distal aorta region (Image 4).

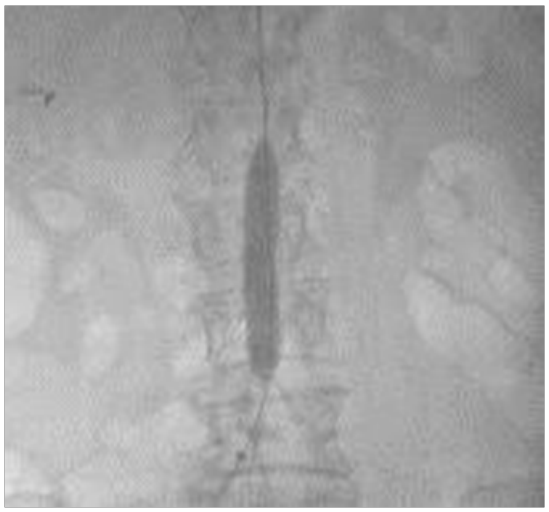


Image 4: Balloon Expandable Stent.

Control arteriography was performed demonstrating incomplete accommodation themed-proximal portions of the stent (Image5). New ballooning was chosen with a 15x40mm MaxiLD balloon catheter (Image 6).

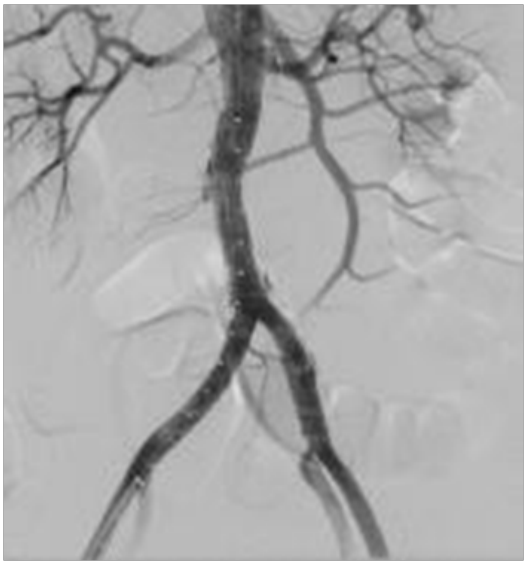


Image 5: Control Arteriography.

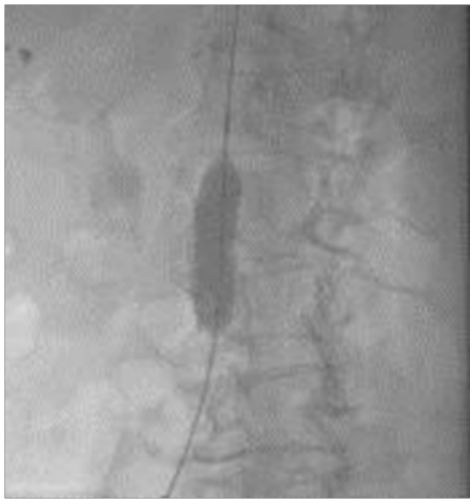
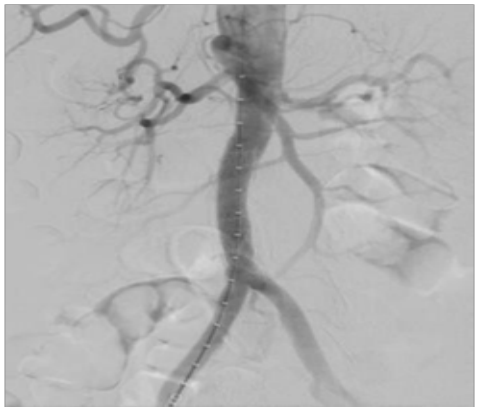


Image 6: Ballooning with Catheter.

Satisfactory angiographic control (Image 7). Proglide 6F vessel occluder (Perclose) was used to seal the femoral punctures. It is necessary to use 2 units for adequate sealing.



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5. Discussion

Aortic ulcers are a rare condition, corresponding to 2.3 to 7.6% of acute aortic syndromes, with aortic ulcers of the abdominal aorta being rarer than those of the descending thoracic aorta, with an incidence of 17.3% and 82.7 % respectively (GEORGIADIS, George S. et al). The main risk factors are high blood pressure, smoking and old age. The diagnosis of aortic ulcer can be challenging due to its non-specific symptoms. Currently, computed tomography is the test of choice for diagnostic aortic ulcers, allowing early detection of the condition (PAULS, S. et al, 2006). O tratamento da úlcera aórtica depende da úlcera aórtica depende da extensão da localização e pode incluir a terapia medicamentosa, o controle dos fatores de risco, a cirurgia ou a intervenção endovascular (Oderich, G. S et al, 2019).

The clinical treatment of aortic ulcers includes controlling high blood pressure, stopping smoking and controlling other associated risk factors. The indications for surgery or endovascular intervention for aortic ulcers are: refractory pain, signs of rupture, accelerated growth of the ulcer associated with mural hematoma or pleural effusion. In asymptomatic ulcers, it is suggested that intervention be proposed when the reisa diameter greater than 20mmor depth greater than 10mm, dueto the greater risk of complications (ERBEL, R. et al, 2014). When intervention is indicated, the options are conventional surgery with exclusion of the affected segment and replacement with a graft or endovascular technique with endoprosthesis implantation. Endovascular treatment of aortic pathologies has presented lower perioperative risks and a shorter hospitalization period compared to conventional surgeries,italsopresentslowrates of endoleak and complications requiring surgical repair, in addition to the therapeutic failure rate within 12 months between the two treatments. does not show a significant difference. (GEORGIADIS, George S. et al.).

6. Conclusion

Infrarenal aortic ulcer is a rare condition, with non-specific symptoms, and computed tomography is a great ally in its diagnosis. Exclusive Clinical treatment is an option for cases without complications, but in cases with rupture and formation of a pseudoaneurysm, intervention is necessary. Minimal invasive interventions have gained ground in recent decades, with the endovascular technique with endoprosthesis implantation being the most used for correcting aortic ulcers.

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