Percutaneous mechanical thrombectomy for renal artery thrombosis using AngioJet® for salvaging kidney

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Introduction

• Renal artery embolism (RAE) is a rare event
• Risk of hypertension and renal loss.
• Traditionally treated with open surgical techniques such as embolectomy, thrombectomy and aortorenal bypass.
Case Description

• 63 year old male
• H/o Type II DM, CAD
• 12 hr history of worsening left flank pain and deranged renal function
Case Description

- CECT demonstrated acute thrombus in the left renal artery
- Associated ischaemic changes in the left kidney
- Normal right kidney
Case Description

• Optimal medical management, anticoagulation
• Systemically Heparinized
• Endovascular intervention
Balloon Angioplasty

- 6Fr J tip Destination sheath, 018 Wire, 3 & 4mm balloon
Stent

6mm balloon expandable stent-Atrium®
Angiojet®

90cm catheter, 120 seconds application, Non-Power Pulse
Final Angiogram
Doppler follow up at 4 week
Contrast Enhanced Ultrasound follow up at 8 week
Discussion

- Aetiology: AF, septic emboli, CHF, Hypercoagulation

- Clinical Presentation: Abdominal pain, Hypertension, Deranged renal function

- Diagnosis: Duplex, CT, MRA, Catheter angiogram

- Treatment: Anticoagulation, Open revascularisation
Discussion

- Mechanical rheolytic thrombectomy has been used in acute ischaemic limb, PE, DVT etc.

- So far only 5 cases in the literature for RAE treated with mechanical thrombectomy, only 2 of them have used AngioJet®
AngioJet®
Discussion

• Complications: Distal embolisation, arterial rupture, cardiac events, death

• Time is of utmost importance, Intervene early

• Preserve renal parenchyma

• Minimize iodinated contrast

• CEUS follow up
References


Thank you!
Acknowledgement

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