

The LINC logo features a stylized, curved shape in red and orange, resembling a flame or a ribbon, positioned above the letters 'LINC' in a white, sans-serif font.

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Life threatening hemorrhage after renal artery angioplasty

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Disclosure

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I have the following potential conflicts of interest to report:

Grant/Research Support – BD, Medicor, Medtronic

Introduction (1)

- ✓ Renal artery stenosis is caused by atherosclerosis or fibromuscular dysplasia.
- ✓ It can be associated with ischemic chronic kidney disease, renovascular hypertension or cardiac syndromes.
- ✓ Endovascular treatment is controversial but may help some selected patients.

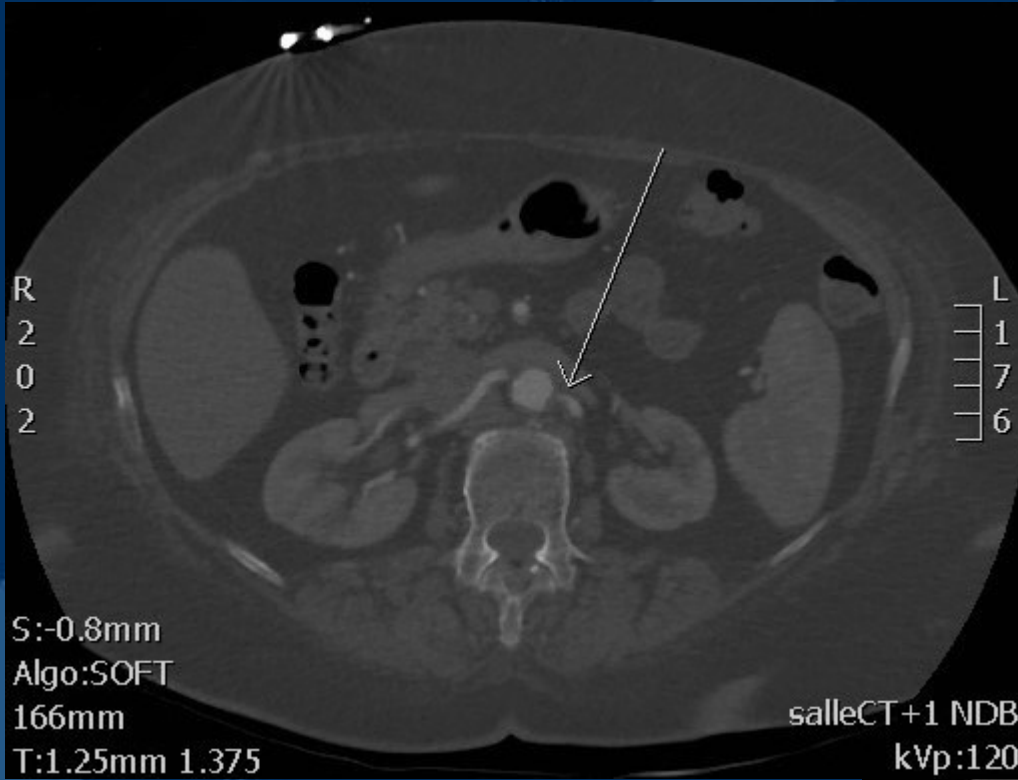
Introduction (2)

- ✓ We report one case of renal artery stenting for stenosis associated with progressive renal insufficiency.
- ✓ The procedure was followed by life threatening hemorrhagic shock and death.

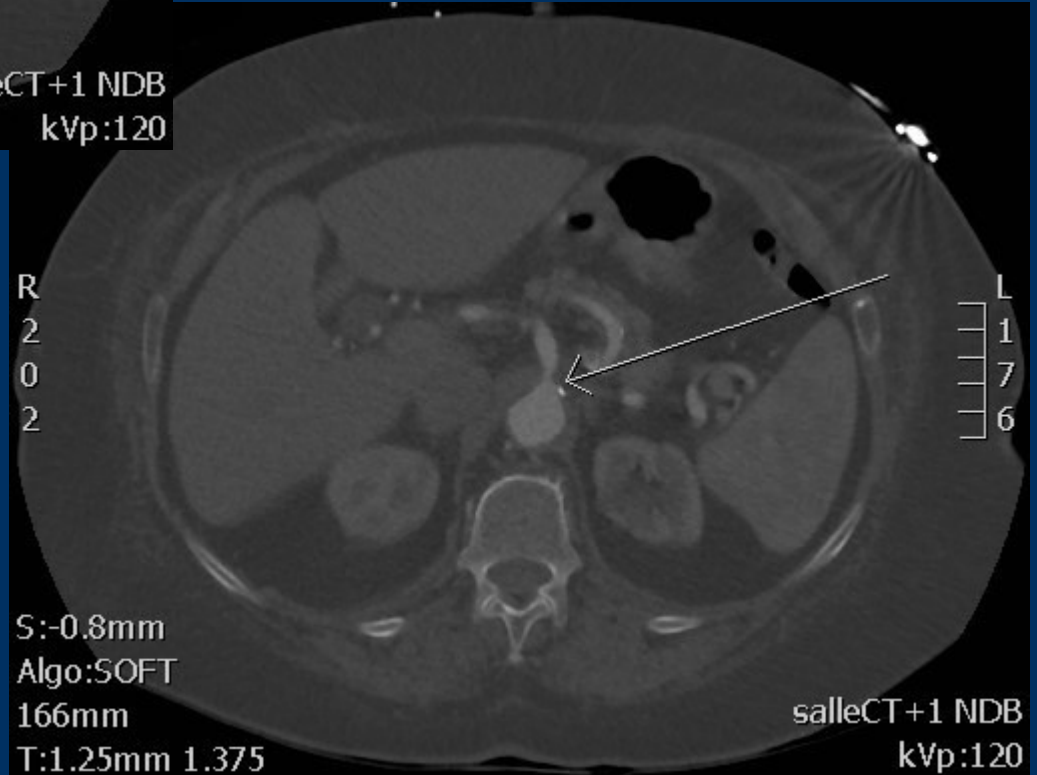
Case report (1)

- ✓ 75 years old woman
- ✓ Past history: arterial hypertension, paroxysmal atrial fibrillation, stage 3 chronic kidney disease
- ✓ Admitted for weakness, tiredness and epigastralgy
- ✓ Blood test: chronic kidney disease raised to stage 4 (22 ml/min/1,73m²)
- ✓ Computed tomography

left renal artery stenosis



coeliac trunk stenosis

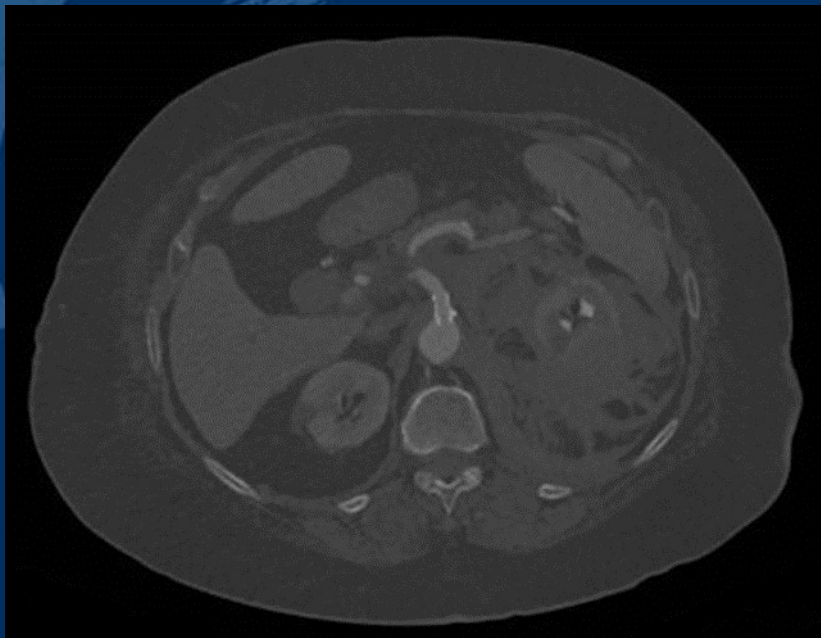


Case report (2)

- ✓ Under general anesthesia and right common femoral puncture, angioplasty with stenting of both left renal artery and coeliac trunk
- ✓ Terumo[®] 0,035 soft angled guide wire to catheterize the target vessels
- ✓ Biotronik Dynamic[®] 5mm-15mm stent in the left renal artery
- ✓ Biotronik Dynamic[®] 7mm-15mm stent in the coeliac trunk

Case report (3)

- ✓ Some hours later: abdominal pain, anemia, hemodynamic instability
- ✓ Computed tomography revealed bleeding in the lower part of the left kidney



Case report (4)

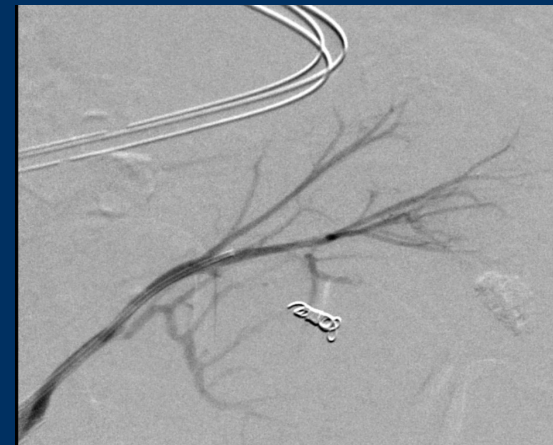
- ✓ Coil embolization of the bleeding vessel at the lower part of the left kidney
- ✓ Blood transfusions needed and NSTMI



- ✓ Despite acute kidney injury, she recovered from the hemorrhagic shock

Case report (4)

- ✓ 2 weeks later: abdominal pain and ARCA



- ✓ MOF and death

Conclusion

- ✓ Standard 0,035 guide wire can perforate small arterial renal branches and cause **hemorrhagic shock** and death.
- ✓ Not to push the wire to far into the kidney.
- ✓ Other wires have to be used when stenting of renal artery is performed: **rosen wire, 0,018 or 0,014 wires.**