Successful Emergency Endovascular Management of an Aorto-caval Fistula
Dr A Mathew, Dr E Lake, Dr J Simpson (Consultant Interventional Radiologists, Royal Preston Hospital, United Kingdom)

82 male, bilateral leg swelling and shortness of breath. Haemodynamically stable. US showed bilateral DVT.

CTA showed a 13 cm AAA, an associated aorto-caval fistula, bi-iliac DVT and extensive bilateral PE

Vascular surgery/Interventional radiology MDT discussion

Suprarenal IVC filter
Right IIA embolization
Bifurcated EVAR

DSA via IMA: Endoleak and persistent aortocaval fistula confirmed

Vascular surgery/Interventional radiology MDT re-discussion

Day 3 CTA showed Type II endoleak involving IMA, lumbar artery and IVC

Persistent endoleak but acceptable final result (patient stable)

Balloon inflated in IVC

Multiple embolization coils in the aneurysm sac

IMA inflow coil-embolization
Final DSA via IMA
Follow-up CT: stable aneurysm size, no endoleak or aortocaval fistula

Summary: Aortocaval fistula is a rare condition ranging from 0.22% to 6% of all ruptured aortic aneurysms. Early diagnosis is crucial, as delay may result in complications including high-output cardiac failure and renal failure. Open repair carries a mortality rate of up to 67%. Several authors have reported successful endovascular repair with excellent results (but this may potentially reflect publication-bias).