A Tight Squeeze…
A Christmas Case of Sutton Kadir Syndrome

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Background

First described by and named after interventional radiologists, Sutton and Lawe, Sutton Kadir syndrome describes the association of coeliac artery stenosis and the development of pancreaticoduodenal aneurysms[1].

PDA aneurysm rupture can carry a high mortality[2].
Management has evolved to predominantly endovascular techniques, proving effective even with persistent coeliac obstruction[3].

Recognition drives appropriate diagnosis and planning to avoid inadvertent compromise of collateral flow.

Our Case

A 31-year-old gentleman presented on Christmas Eve with sudden onset severe abdominal pain and collapse.

Initial CT showed a large haematoma with active extravasation.

Further arterial phase imaging revealed marked coeliac stenosis due to median arcuate compression

Resultant compensatory collateral flow from the superior mesenteric artery via a hypertrophied inferior pancreaticoduodenal branch.

Within this collateral network, a small pseudoaneurysm was identified from an IPDA branch, identifying the bleeding point.

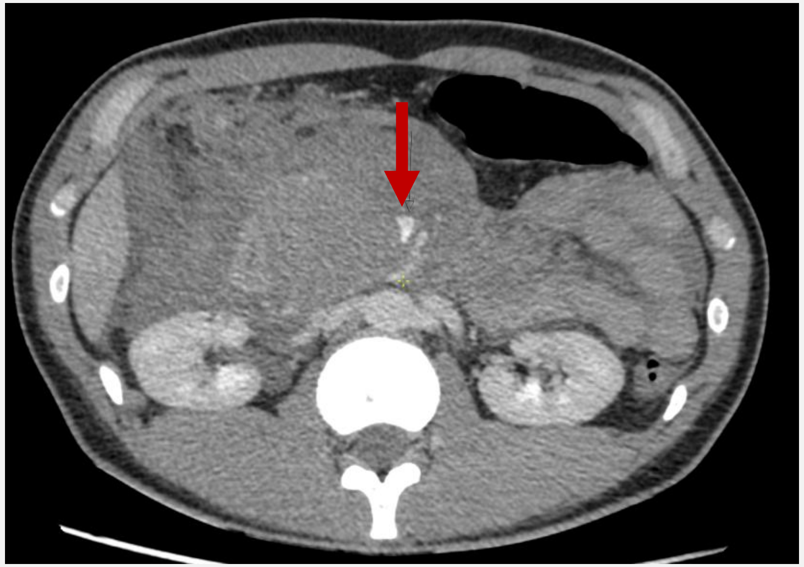

Figure One.
Diagnostic dilemma.
Active extravasation of the abdominal haematoma.

Components of Sutton Kadir – Coeliac Artery Compression

Stenosis of the coeliac artery due to a median arcuate ligament.

Other causes include coeliac artery compression due to atherosclerosis or more rarely vasculitis[4].

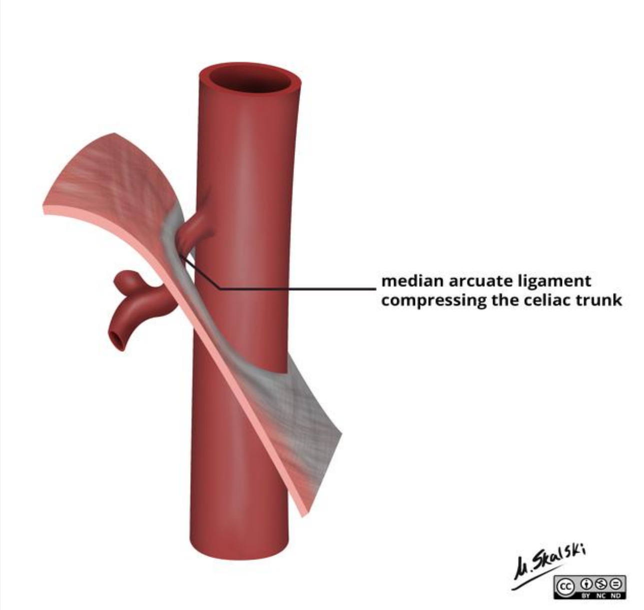

Figure One
Illustration of Coeliac Artery Compression due to median arcuate ligament.
Illustration courtesy of Matt Skalski[5].

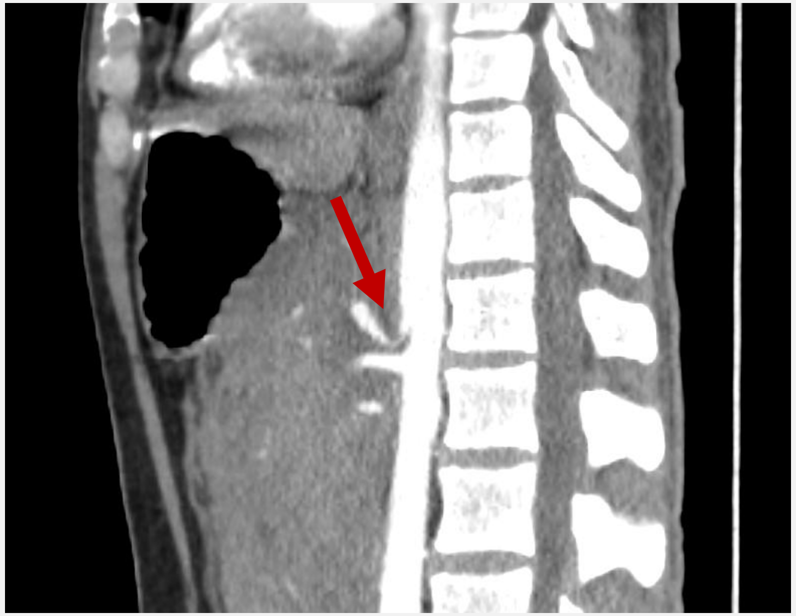

Figure Three
Component One: Coeliac Artery Compression. CT abdomen and pelvis triple phase.(Arterial Phase, Sagittal.)
Compression of the coeliac axis due to median arcuate ligament seen in our case.

Figure Four
Component One: Coeliac Artery Compression. CT abdomen and pelvis triple phase.(Arterial Phase, Axial.)
Compression of the coeliac axis due to median arcuate ligament.

Component Two – Pancreaticoduodenal Aneurysm

- Significant stenosis of the coeliac axis increases demand on the superior mesenteric artery, pancreaticododuodenal, coeliac collateral pathway[2].
- It results in chronic high volume and velocity flow resulting in true aneurysm formation.
- Haemorrhage risk is independent of aneurysm diameter[4].

Figure Five
Component Two: Pancreaticoduodenal (PDA) Aneurysms
Obstruction leads to retrograde flow from the superior mesenteric artery through the pancreaticodudodenal to supply the coeliac territory.
Small bleeding pseudoaneurysm of the IPDA branch.

Management

Successful coil embolization of the bleeding pseudoaneurysm was performed with immediate stabilisation and cessation of contrast leakage.

The patient recovered uneventfully and was discharged after interval monitoring.

This case highlights the importance recognising collateral driven aneurysm formation in the setting of coeliac outflow obstruction. Awareness enables timely diagnosis and safe, targeted endovascular management.

References

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5. Radiopaedia.org, *Median Arcuate Ligament Syndrome – Case 5*, Image 12663082, Radiopaedia.org, viewed 26 January 2026, https://radiopaedia.org/cases/median-arcuate-ligament-syndrome-5#image-12663082.