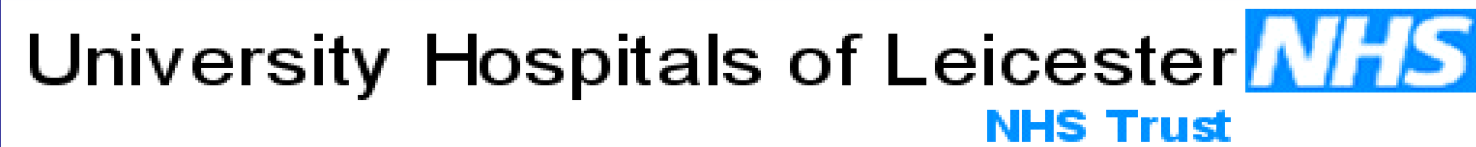
Bilateral adrenal haemorrhage secondary to non-meningococcal sepsis

M.Lubczynska, T. Macriyiannis, Marie-France Kong
Department of Endocrinology



Patient presentation

❖ A 69 year old man presented to the hospital after a fall from a 6 foot ladder. Previously fit and well with a 55 pack year smoking history. Rushed to hospital as trauma call.
A & E work up: CT scan full body: fractures of the left 6th rib and right superior and inferior pubic rami. Incidental finding of 5.2cm in diameter abdominal aortic aneurysm with no features of endovascular leak.
Treatment: conservative with analgesia and transfer to orthopaedic ward

Timeline:
❖On day 14 of admission, patient became septic with pyrexia of 38.2℃, tachycardia (HR 105), hypotension (MAP<50), and oliguria (UO<20mls/hr). He was commenced on sepsis bundle with antibiotics and aggressive fluid resuscitation. Three sets of blood cultures along with FBC ,U&E, LFTs and CRP were obtained. He was subsequently transferred to ITU requiring intubation and ventilation.

❖On day 15, emergency CT scan of the abdomen showed images in keeping with bilateral adrenal haemorrhage and stable AAA.
Endocrine consult → Patient was commenced on intravenous steroids.

❖On day 16, he was extubated and converted to oral hydrocortisone and fludrocortisone. He remained hemodynamically stable requiring no organ support.

❖On day 17, he was stepped down from ITU to a medical bed as he remained stable.

❖On day 21, he was discharged from hospital with oral supplementation of hydrocortisone and fludrocortisone.

❖**Follow up visit:** Seen in the endocrinology clinic 6 weeks after discharge from hospital. He had not had any hydrocortisone or fludrocortisone tablets for 6 weeks as he did not realise he needed to continue taking these medications. SST -> suboptimal response still and restarted on treatment. Advice given on sick day rules.

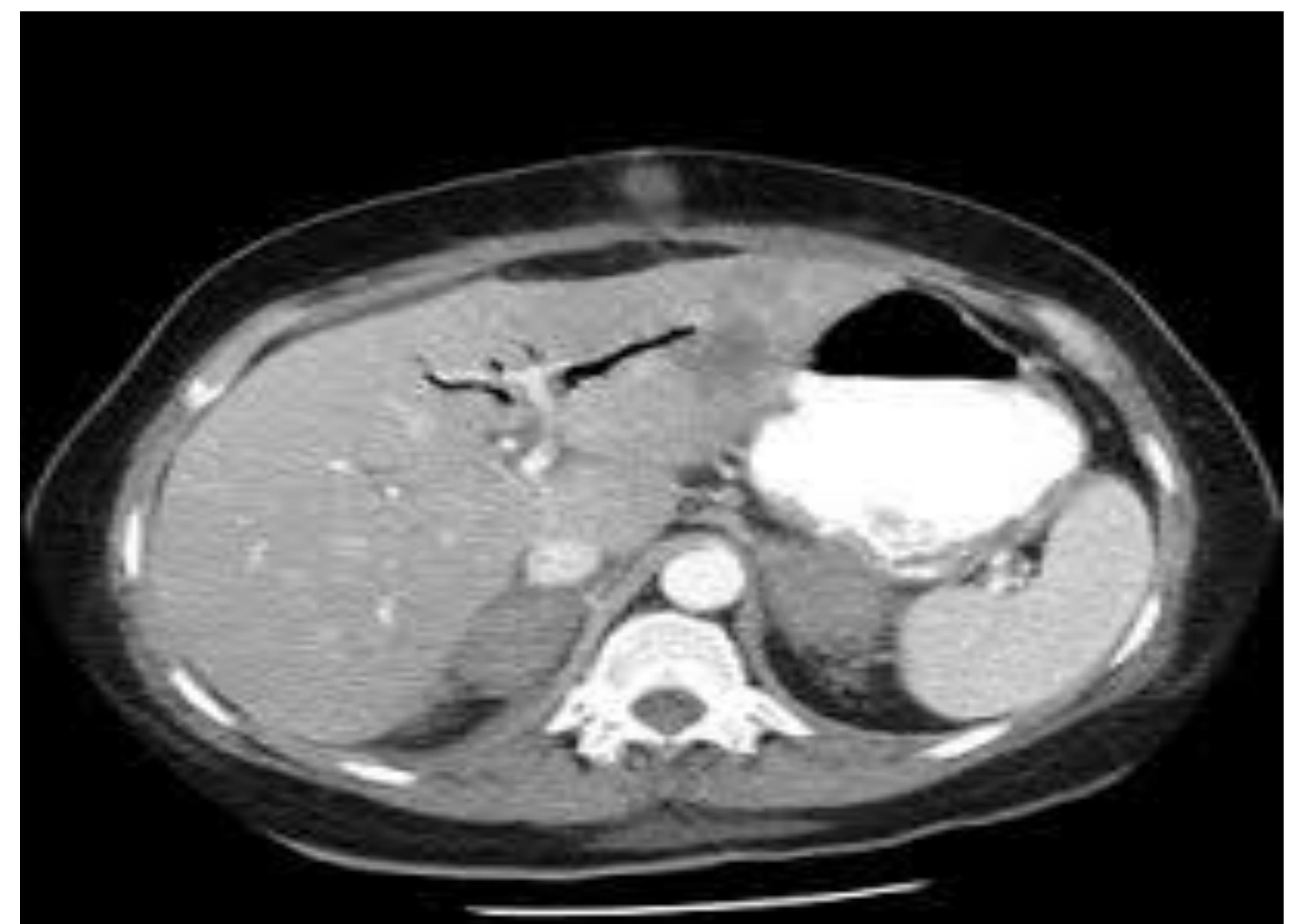
❖**One year later:** patient underwent unremarkable elective repair of AAA.

Evaluation and diagnosis

❖Laboratory and radiological data:

- 3 sets of blood cultures- no growth after 72 hours
- short Synacthen test (SST):

	Cortisol level (nmol/L)	ACTH level (ng/L)
Baseline	231	339
30min after SST	283	n/a

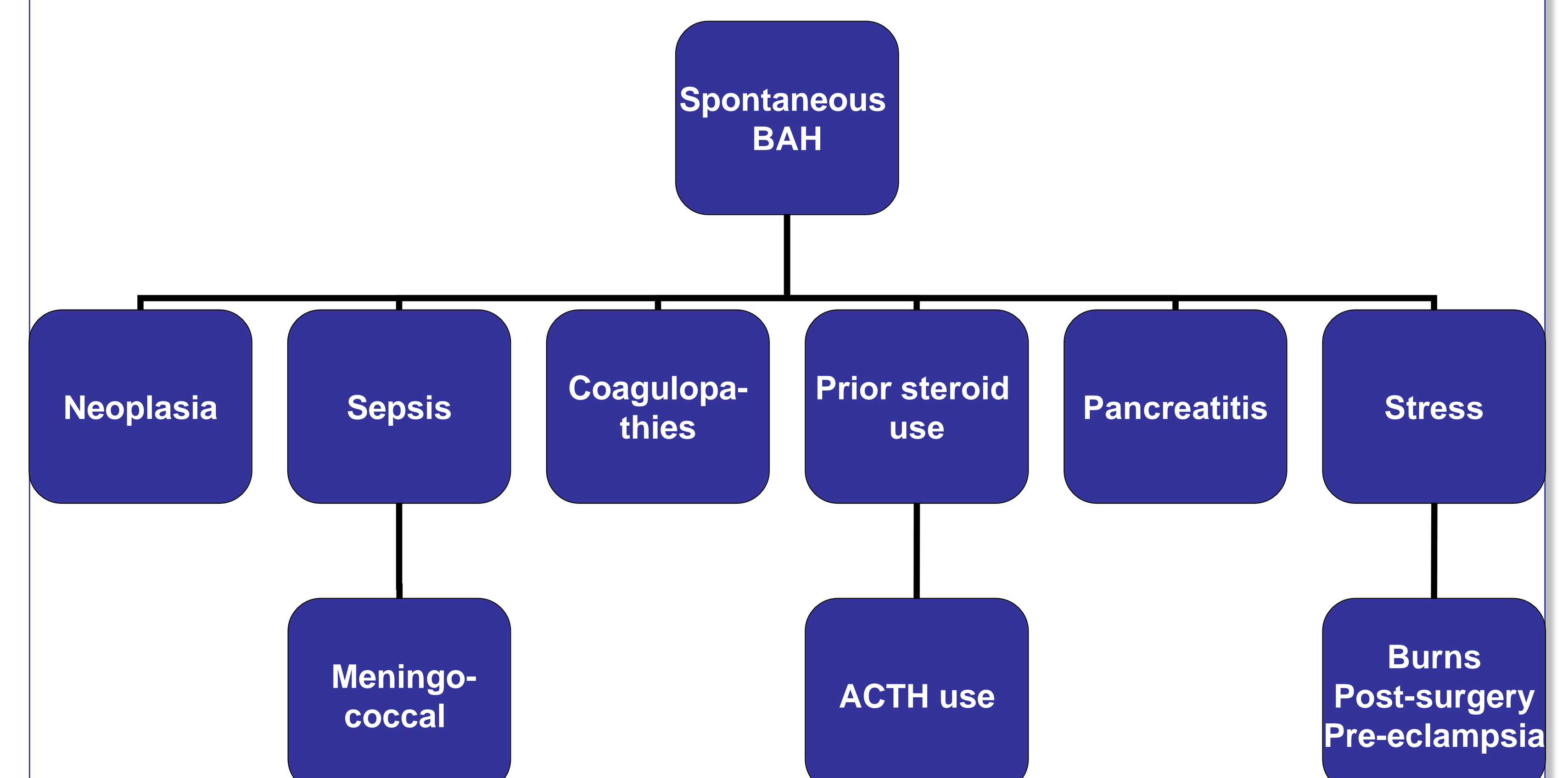


Discussion

❖Bilateral adrenal haemorrhage (BAH) has an estimated incidence of 4.7-6.2 per million in developed nations[1]

❖Most common aetiology is trauma, including iatrogenic causes due to extracorporeal shock wave lithotripsy and electroconvulsive therapy[2,3]

❖Spontaneous BAH is associated with the following predisposing conditions:



References

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