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IMAGES IN MEDICINE

Renal colic is not always because of renal stones!

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CLINICAL INFORMATION

This is a case of a 46-year-old male patient who was admitted with left abdominal pain. The pain was colicky in nature and radiated from the loin to the groin "as a typical renal colic description". His past medical history included nephrotic syndrome diagnosed as minimal change nephropathy by renal biopsy 5 years before admission. He was taking immunosuppressant medications for his minimal change nephropathy which was resistant to treatment.

In addition to massive obesity (BMI of 40), he had a massive oedema which made his examination and ultra sound scanning very difficult. On examination, the abdomen was minimally tender on the left side but there was neither rigidity nor palpable abdominal masses. There was a 20 mmHg difference in the blood pressure readings between the right and left arms (100/70 mmHg on the right and 75/50 mmHg on the left). A plain abdominal X ray did not show renal stones. Ultra sound scan was practically very difficult because of his body physique. Blood tests showed urea 30.00 mmol/l, creatinine of 450 ìmol/l, K^+ 5.8 mmol/l, Na^+ 140 mmol/l, Hb 10.0g/dl and albumin of 25 mmol/l. Urine examination revealed four pluses protein. On the next day, urgent CT scan was arranged (FIGURE 1) which showed an infra renal aortic aneurysm 6.2 cm in diameter with an evidence of leakage. There was a haematoma in the left psoas muscle and in the mesenteric fat around the left side of aorta. On the same day, the patient was taken to the theatre for an urgent aneurismal repair. He was transferred to the intensive care unit where he stayed for 21 days after which he sadly died because of sepsis and multi-organ failure. ❑

DIFFERENTIAL DIAGNOSES OF RUPTURES AORTIC ANEURYSM

The specific CT finding is the presence of the crescent sign which is an enhancement within the AAA mural thrombus or wall that is thought to represent intramural hematoma (1,2). This was found to be a sign of acute or impending rupture. However, clinical differential diagnoses of ruptured aortic aneurysm include (2):

1. Nephrolithiasis or renal colic
2. Acute cholecystitis
3. Diverticulitis

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FIGURE 1. CT showing the presence of the crescent sign which is an enhancement within the AAA mural thrombus or wall that is thought to represent intramural hematoma. This was found to be a sign of acute or impending rupture.

4. Perforated gastric ulcer or peptic ulcer disease
5. Bowel infarction
6. Musculoskeletal lower back pain
7. Myocardial infarction

Final clinical outcomes and diagnostic pitfalls

- Ruptured aortic aneurysm may present with a renal colic like presentation.
- The difference between the blood pressure recordings on the left and right is mentioned as a sign of ruptured
- Because of his Nephrotic syndrome and massive oedema, clinical examination was very difficult.
- There were no clear signs to point toward ruptured aortic aneurysm.
- It was practically difficult to do ultrasound scan because of the generalized oedema and huge obesity. He was only diagnosed after having a CT scan. ❑

REFERENCES

1. **Qureshi NA, Rehman A, Slater N, et al** –Abdominal aortic aneurysm surgery in a district general hospital: a 15-years experience. *Ann Vasc Surg* 21(6):749-753
2. **Macdonald AJ, Faleh O, Welch G, et al** – Missed opportunities for the detection of abdominal aortic aneurysms. *Eur J Vasc Endovasc Surg* 35(6):698-700