



Spectrum of presentation and aetiology of adrenal haemorrhage: a case series

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Introduction:

- Adrenal haemorrhage is rare. There is a broad spectrum of clinical presentation and aetiology of the condition making it challenging to diagnose. ^{1,2}
- Endocrine dysfunction frequently complicates cases of adrenal haemorrhage. ³
- Failure to recognise the condition or its complications can lead to devastating consequences for the patient. ¹

Methods:

- All patients referred to our centre with adrenal haemorrhage between 2004-2014 were included in this retrospective study.
- The clinical notes, laboratory & radiological investigations of each case were recorded.

Results

Presentation

- 10 patients with adrenal haemorrhage were identified.
- 7 patients presented with acute abdominal pain.
- Adrenal haemorrhage was an incidental histological finding in 2 patients and an incidental radiological finding in 1 patient.
- 3 patients were diagnosed with hypoadrenalism.
- 6 of the 10 patients were haemodynamically unstable at presentation, each of whom presented with acute abdominal pain.

Management & Outcomes

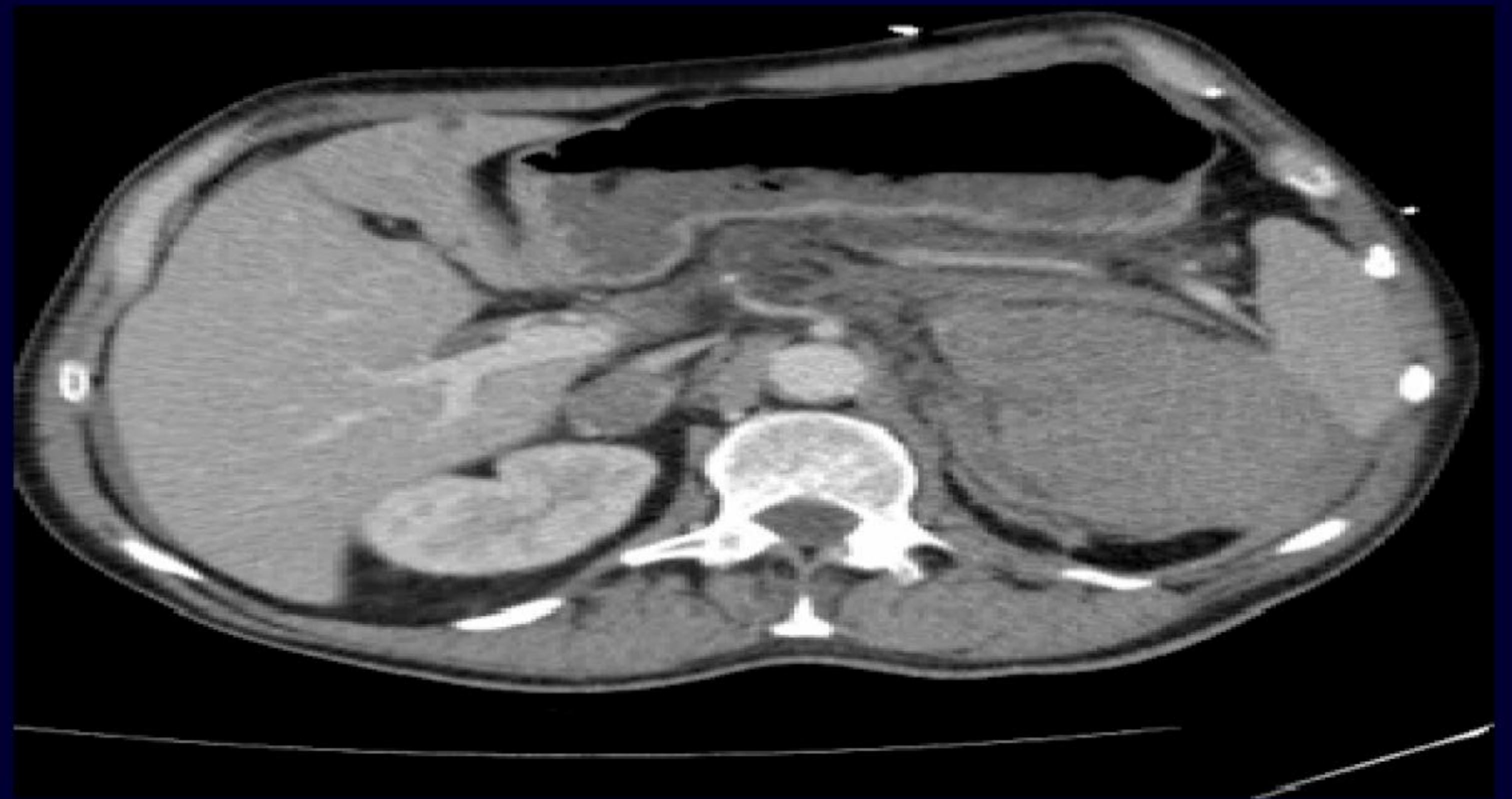
- 6 patients underwent elective adrenalectomy following haemodynamic stabilisation with no associated operative mortality.
- 2 patients had a diagnosis of vasculitis and were managed successfully with medical therapy.
- 1 patient died due to metastatic lung cancer

Table 1: summary of the presentation, radiological findings and clinical diagnoses of each case

Figure 1: Coronal CT image reveals an extensive right adrenal haemorrhagic mass with superimposed haemorrhage into the retroperitoneal cavity



Figure 2: Sagittal CT abdomen shows bilateral adrenal masses measuring 12cm on the left and 2.7cm on the right with surrounding inflammatory changes consistent with a haemorrhagic left adrenal mass with retroperitoneal extension.



Discussion & conclusion:

- The aetiology of adrenal haemorrhage is variable and identifying the underlying diagnosis can be challenging. ^{1,2}
- The appropriate management of the condition requires an awareness of the potential endocrinological consequences of adrenal dysfunction including glucocorticoid deficiency and catecholamine hypersecretion.
- Elective adrenalectomy following endocrine investigations and haemodynamic stabilisation rather than emergency adrenalectomy is preferred.
- There was no operative mortality associated with this approach which is recognised as being elevated in patients operated for adrenal haemorrhage.

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 2. Marti JL, Millet J, Sosa JA, et al. Spontaneous adrenal haemorrhage with associated masses: etiology and management in 6 cases and review of 133 reported cases. World J Surg 2012 Jan; 36 (1): 75-82
 3. Mehravin, R, Derweesh IH, Kincade et al. Adrenal trauma: elvis Presely Memorial trauma center experience. Urology Nov 2007;70(5):851-5

