Hypertensive crisis and incidental phaeochromocytoma during routine day case surgery

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Pre-op

A 65-year-old ASA 1 male presented for elective inguinal hernia surgery. He had an uncomplicated GA for surgery 3 years previously. Pre-operative bloods and ECG were normal, BP was 130/90 mmHg and HR 82 bpm.

Intra-op

Induction of general anaesthesia was uneventful with fentanyl 100mcg, propofol 240mg and LMA insertion. Multimodal analgesia and anti-emesis included:

- paracetamol 1g,
- diclofenac 75mg,
- ketamine 25mg,
- dexamethasone 6.6mg and
- ondansetron 4mg.

Shortly after KTS, BP rose to 235/113 mmHg; additional fentanyl and propofol were administered and end tidal sevoflurane kept ≥2.2. BP improved to 150/92 mmHg and HR maintained 76-80 bpm throughout.
Surgery was uneventful.

Post-op

In recovery, despite minimal post-surgical pain, BP rose to 190/112 mmHg and HR 86-116 bpm. Our patient complained of a significant headache. Labetalol 20mg i.v. was titrated and BP improved to 154/88 mmHg and HR to 98 bpm. He returned to the ward with pending medical review for hypertension.

At anaesthetic post-op review BP was again elevated, his headache had returned and he appeared grey and sweaty. An ECG showed no ischaemia. Bloods showed a raised Troponin I of 3578 and lactate of 6mmol/L.

An urgent CT (querying aortic dissection) identified a haemorrhagic 6.1cm right adrenal lesion. Adrenal angiogram was performed but embolization was not required. His acute hypertension was managed in HDU where he was commenced on oral doxazosin for alpha-adrenoceptor blockade. He was discharged once recovered from a LRTI and underwent a successful adrenalectomy a few months later.

Consent: Written patient consent for publication was obtained by the authors

Discussion

Phaeochromocytomas are rare, and a first presentation as above is extremely rare. A ‘phaeo crisis’ should be considered <u>where hypertension is resistant to treatment and where tachycardia, headache and autonomic symptoms exist.</u>

Hypertensive crisis may be the initial manifestation, potentially triggered by stressors including general anaesthesia, surgery and glucocorticoids[1].

Expedient supportive management is essential as mortality is high if cardiac failure occurs[1]. This includes invasive BP monitoring, alpha-blockade, vasodilatation and adequate fluid administration.

Reference

1. Rosas AL, Kasperlik-Zaluska AA, Papierska L et al. Pheochromocytoma crisis induced by glucocorticoids: a report of four cases and review of the literature. Eur J Endocrinol. 2008 Mar; 158 (3): 423-9.