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## Anaesthesia

# Transient severe haemodynamic disturbance during radical nephrectomy: a probable catecholamine surge

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## Abstract

Catecholamine surge and haemodynamic derangements are normally expected during the surgery for pheochromocytoma and benign functioning adrenal tumours. This male patient in his 50s underwent radical nephrectomy for renal cell carcinoma. The patient had no comorbidities. Three hours into the surgery, during electrocauterisation of the upper pole of the kidney, the patient's blood pressure unexpectedly spiked to 180/110 mm Hg, which was immediately followed by a decrease in heart rate to 35–38 beats/min. The surgeons were instructed to briefly halt the surgical manipulation. The blood pressure returned to the pre-surge level within 30–45 s. The surgery was completed without further complications, and the patient had an uneventful recovery. The episode is suggestive of the probability that the electrocauterisation of the upper pole of the kidney led to the accidental cauterisation of the adrenal gland, resulting in a transient catecholamine surge, increase in blood pressure and reflex bradycardia suggesting norepinephrine release. Treating bradycardia with atropine in such situations can exacerbate the effects of catecholamines and lead to dangerous tachyarrhythmias. The case report highlights the importance of vigilant monitoring during electrocauterisation of the upper pole of the kidney, invasive arterial blood pressure monitoring in detecting and recording such occurrences and cautiously selecting a treatment plan.

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