

# Pheochromocytoma in children: a case report

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## Background

- Severe prolonged hypertension occurs in 0.1% of the children's population and only about 2% of these have underlying endocrine causes.
- Pheochromocytoma (PCC) is a rare tumor arising from the adrenal medulla as well as extra-adrenal paraganglion system and secreting catecholamines causing severe hypertension in children.
- The gold standard for diagnosis is the measurement of free plasma levels of metanephrines while imaging studies performed for the location and size of the tumor and possible metastatic lesions
- Preoperative treatment with alpha blockers, beta blockers and tyrosine hydroxylase inhibitors improves safety of the surgical procedure.

## Objectives

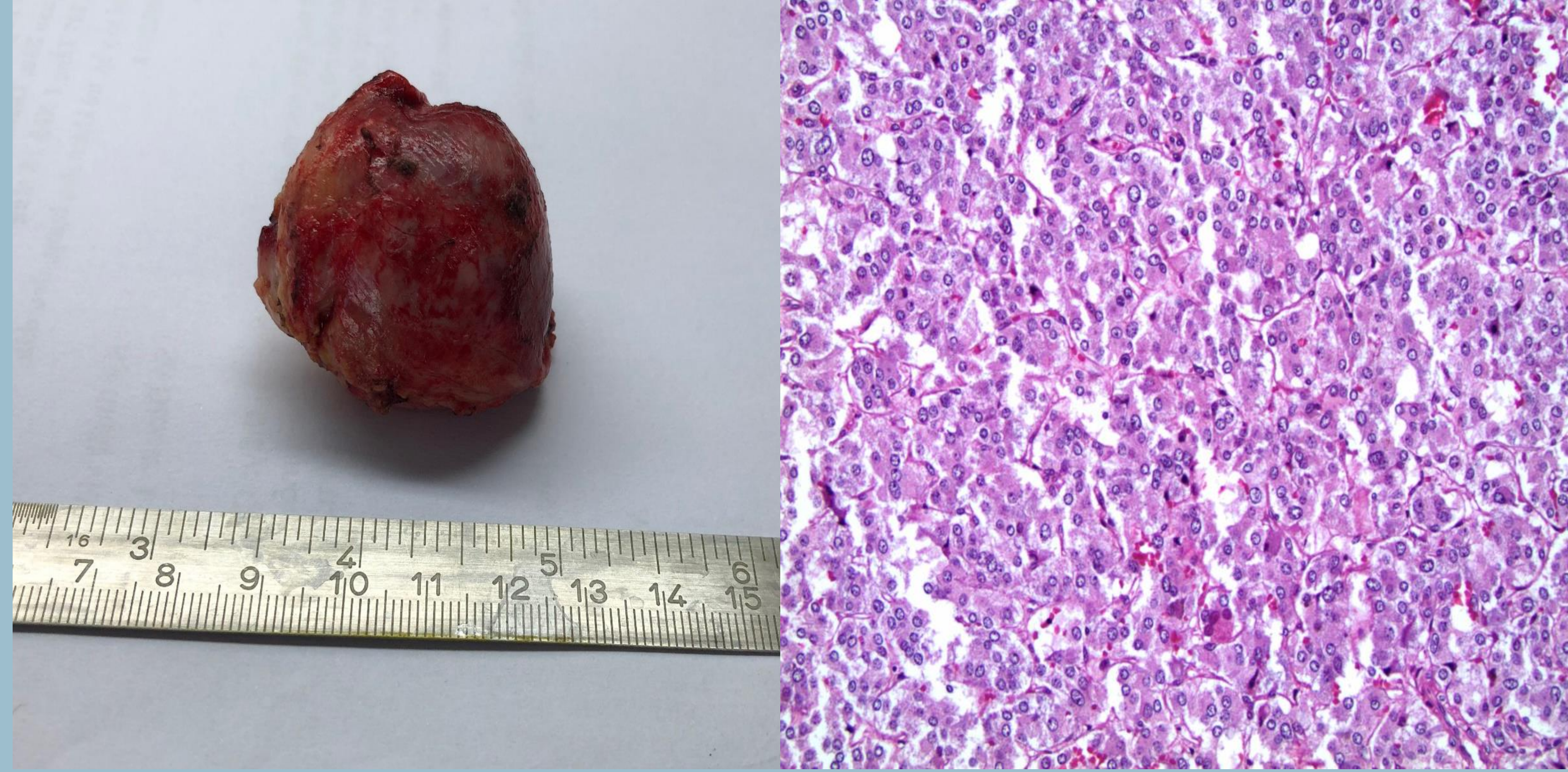
To describe the clinical characteristics, investigation data and outcome of patients with Pheochromocytoma

## Methods

This is case study including clinical symptom descriptions, biochemical and imaging investigations, and management for the child with PCC

## Results

- The female patient was 7 years old, with no medical history. She presented with vomiting, headache, abdominal pain and convulsions. Blood pressure was 220/190 mmHg and heart rate 130/min on admission.
- Abdominal CT showed a left adrenal tumor of 24x25 mm in size. Plasma level of cortisol and noradrenaline were 1374 nmol / L and 971 pg / ml, respectively; and urinary HVA level was 7.8 μmol/mmol of creatinine. Cerebrospinal fluid testing is normal.
- Preoperative blood pressure was controlled within 30 days with nicardipine, doxazosin mesylate and amlodipine. A 20x30 mm tumour was removed through endoscopy. Histopathological tissue was Pheochromocytoma, benign.
- After surgery, patient was stable with normal blood pressure, without using antihypertensive drugs.



## Conclusions

- PCC is the cause of treatable secondary hypertension. Stabilizing blood pressure prior to surgery, contributes to ensure surgical treatment safety.
- Multidisciplinary collaboration is warranted to optimize the management of patients: Pediatric endocrinology - Imaging diagnosis - Anesthesia - Surgery - Resuscitation after surgery

## References

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