

CONCLUSION

The coexistence of double adenomas can pose diagnostic and management challenges for the pituitary neuroendocrine team and is a common cause for surgical failure. Intraoperative evaluation is important in the identification of multiple pituitary adenomas in a patient presenting with multiple secretory manifestations.

PP-55**Brittle Bones and Leaking Phosphate**

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INTRODUCTION

Fanconi syndrome is an established cause for low bone mineral density (BMD). Confirmed cases of acquired Fanconi syndrome due to tenofovir have been reported worldwide. The mean duration of therapy with tenofovir before the development of Fanconi syndrome is reported to be 11 months. The implicated agent was discontinued in all cases after which renal function tests and electrolytes normalised. We present a case of acquired Fanconi syndrome following tenofovir use.

CASE

A 57-year-old male with Hepatitis B infection who had been on tenofovir for 5 years presented with a low impact calcaneal fracture while standing up from a squatting position 3 years ago. Over the past two years, he experienced gradually worsening proximal muscle weakness and weight loss of 6 kg. Physical examination revealed a man of small build with proximal muscle weakness and tenderness. Blood parameters showed hypokalaemia and hypophosphatemia with inappropriately elevated urinary phosphate and potassium clearance. Thyroid function and serum testosterone were normal. His 25-hydroxyvitamin D levels were sufficient. Electromyography reported diffuse neurogenic pattern with secondary myogenic changes suggestive of a metabolic cause. Abdominal ultrasound revealed bilateral renal calculi. Dual x-ray absorptiometry scan showed osteoporosis at the lumbar spine and distal third of the radius. A diagnosis of acquired Fanconi syndrome associated with tenofovir therapy was made. He was started on oral phosphate and potassium supplements while tenofovir was replaced with entecavir. Upon review 6 months later, he was much better with no muscle pain or weakness. Repeated serum potassium and phosphate levels were within normal limits.

CONCLUSION

Tenofovir use is associated with acquired Fanconi syndrome which can lead to osteoporosis. A high index of suspicion is necessary among patients on this medication who present with low impact fractures as timely intervention can prevent significant morbidity.

PP-56**The Invisible Evil Twin of an Adrenal Adenoma**

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INTRODUCTION

Primary aldosteronism (PA) causes a persistently elevated blood pressure (BP) due to excessive release of the hormone aldosterone from the adrenal glands. It can be cured with surgical resection of the aldosterone-secreting adenoma leading to resolution of hypertension and reduction in cardiovascular risk. There is known discordance between identification of adenoma with computed tomography (CT) and confirmation of aldosterone hypersecretion with adrenal venous sampling (AVS).

CASE

We present the case of a man with previous ischemic heart disease who presented with resistant hypertension. He had been diagnosed with essential hypertension 5 years prior. Investigations for secondary causes of hypertension were performed, as he subsequently required 5 anti-hypertensive medications to control his hypertension. Work-up revealed an elevated serum aldosterone of 924 pmol/L [normal range (NR) 111 to 860] with suppressed plasma renin activity of 0.4 ng/mL/hr (NR 1.5 to 5.7); and aldosterone-to-renin ratio of 2060 (NR <750). Saline suppression test confirmed the diagnosis, with failure of suppression of aldosterone with salt loading. CT of the adrenal glands revealed a left adrenal adenoma measuring 1.4 cm x 1.5 cm with a Hounsfield Unit (HU) of 12 and absolute washout of 60%. The right adrenal gland was normal.

AVS was performed. There was lateralisation to the right adrenal gland indicating aldosterone hypersecretion but with normal adrenal imaging. The Lateralisation index ratio was 8.6 (NR <3). The patient subsequently underwent a repeat AVS which produced similar results. One month later, he underwent laparoscopic right adrenalectomy which improved his BP control. Histologic features were consistent with adrenal cortical adenoma.

CONCLUSION

This case highlights the importance of recognizing the need to investigate for secondary causes of hypertension. It also underscores the importance of dynamic tests such as AVS to confirm hypersecretion of aldosterone from the correct adrenal gland resulting in the best treatment option.