

Adult E-poster

EP_A002

EVALUATION OF MORNING CORTISOL IN DIAGNOSIS AND MANAGEMENT OF ADRENAL INSUFFICIENCY IN A TERTIARY HOSPITAL IN CENTRAL PAHANG

Saravanaa Nalliah¹ and See Chee Keong¹

¹Hospital Raub, Hospital Sultan Haji Ahmad Shah

INTRODUCTION

Adrenal insufficiency (AI) is a life-threatening condition that frequently presents with non-specific symptoms, complicating early diagnosis. Morning serum cortisol serves as an effective initial screening tool for assessing the hypothalamic-pituitary-adrenal (HPA) axis, potentially reducing the necessity for dynamic investigations such as the Short Synacthen Test (SST). This study aims to assess the clinical indications for morning cortisol testing and evaluate institutional compliance with guideline-based cortisol cut-offs, the initiation of hydrocortisone therapy, and the provision of "sick day" education.

METHODOLOGY

A retrospective cross-sectional study was conducted among inpatients at a tertiary hospital in Central Pahang who underwent morning cortisol evaluation between March and August 2025. Data regarding demographics, indications, biochemical results, and clinical management were analyzed using SPSS version 26.0.

RESULTS

Among the 111 patients included (mean age: 54.96 ± 15.88 years), the primary indications for testing were hyponatremia (54.1%), hypotension (27.9%), and a history of traditional medication use (26.1%). Based on Endocrine Society guidelines: <150 nmol/L (AI likely): 16.2%, $150-300$ nmol/L (Borderline): 26.1%, and >300 nmol/L (AI unlikely): 57.7%. Notably, only 10 of the 18 patients with cortisol levels <150 nmol/L were formally diagnosed and initiated on appropriate therapy. In the borderline group, only two patients underwent an SST. Although 12 patients overall were treated for AI, only eight received documented "sick day" education. Low cortisol levels were significantly associated with hyponatremia, hypotension, and traditional medication use, and demonstrated a negative correlation with serum sodium and albumin levels.

CONCLUSION

Morning serum cortisol is a valuable screening tool for AI, particularly in patients presenting with hyponatremia or hypotension. However, significant gaps persist in follow-up management, confirmatory testing, and patient education. Implementing standardized protocols and enhancing clinician education are essential to optimize care.

EP_A003

PRIMARY ALDOSTERONISM IN A MALAYSIAN TERTIARY CENTRE: A RETROSPECTIVE AUDIT OF CLINICAL CHARACTERISTICS, DIAGNOSTIC PATHWAYS, AND TREATMENT OUTCOMES (2018–2025)

Ahmad Hambal Bin Zamari¹ and Yusniza Yusoff¹

¹Endocrine Unit, Hospital Sungai Buloh

INTRODUCTION

Primary aldosteronism (PA) is a common yet under-diagnosed cause of secondary hypertension, associated with increased cardiovascular and renal morbidity. Early detection and subtype-directed management significantly improve outcomes. However, adherence to recommended diagnostic pathways in real-world practice remains variable.

CASE

We conducted a retrospective audit of patients diagnosed with PA in a Malaysian tertiary centre from January 2018 to December 2025. Data collected included demographics, clinical presentation, biochemical parameters, diagnostic workup (aldosterone-renin ratio [ARR], confirmatory testing, adrenal imaging, and adrenal venous sampling [AVS]), treatment modality, and outcomes. Audit standards were based on established international guidelines.

A total of 14 patients were included, with equal gender distribution. The cohort comprised 57% Malay and 43% Chinese. Most patients presented with hypertension (mean $\sim 170/100$ mmHg), and hypokalemia was present in approximately 70% of the patients. ARR and adrenal imaging were performed in all patients (100%), while confirmatory testing was conducted in 85% of the patients. However, AVS utilization remained limited (50%). Contributing factors included failed cannulation, technical challenges in overweight patients, preference for medical therapy, refusal of surgery, and limited access to AVS services. The majority had unilateral adrenal adenoma ($\sim 75\%$). Treatment was divided between surgical (55%) and medical (45%) approaches. Post-treatment, hypokalemia resolved in 90% of patients, with a significant reduction in antihypertensive burden and complete hypertension resolution in approximately 35% of the patients. Quality of life improved in most patients.

CONCLUSION

This audit demonstrates good adherence to initial screening and imaging in PA but highlights suboptimal utilization of AVS. Barriers to AVS utilization are multifactorial, encompassing technical, patient-related, and system-