

## Adult E-Poster

### RESULT

The median age of the cohort was 58 years, with almost equal gender distribution and most tumors being non-malignant (92%) and non-functioning (72%).

Bilateral AIs were present in 24 (9.6%) patients. Ten were functioning with mild autonomous cortisol secretion (MACS) being the commonest subtype (80%).

Among the non-malignant AIs, 27% were functioning. Of these, the majority (51%) were diagnosed with MACS, followed by pheochromocytoma (27%), primary hyperaldosteronism (21%), and one case of overt Cushing's syndrome. Functioning AIs were associated with higher rates of hypertension and osteoporosis, larger tumour size, greater tumour density, and a lower rate of absolute contrast washout.

Adrenalectomy was performed more frequently in the functioning group, primarily for MACS and pheochromocytoma. The majority (94%) of non-functioning benign AIs were managed conservatively. No malignant transformation was observed, and only one case became functional over a median follow-up of 30 months.

Of the 20 malignant AIs, 12 were primary adrenal cancers. The malignant AIs were more likely to present with weight loss, overt Cushing's, larger tumor size, higher density, reduced contrast washout, and significantly higher mortality compared to non-malignant AIs.

### CONCLUSION

This study suggests that most benign non-functioning AIs pose minimal risk of progression, supporting reduced follow-up in stable cases.

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### INSIGHTS FROM A 2024 CLINICAL AUDIT OF THYROID STORM CASES AT HOSPITAL SULTAN ISMAIL, JOHOR BAHRU

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### INTRODUCTION/BACKGROUND

Thyroid storms require immediate medical intervention due to the risk of rapid multi-organ failure and high mortality. Therefore, a retrospective audit of thyroid storm

management at Hospital Sultan Ismail, Johor Bahru (HSIJB) was done, to ascertain strengths and identify areas for improvement.

### METHODOLOGY

This audit analyzed all 17 thyroid storm cases admitted to HSIJB in 2024 (1<sup>st</sup> January 2024 to 31<sup>st</sup> December 2024). Data was extracted from electronic medical records.

### RESULT

Most were female (70%, n = 12) with mean age of 48 years (range 26 to 75 years). All had Bursch-Wartofsky Point Scale of at least 45 (range 45 to 140). The commonest presentation was cardiovascular manifestations (100% tachycardia, 76% atrial fibrillation, 58% heart failure), followed by gastrointestinal-hepatic dysfunction (53%) and CNS effects (47%). All 5 ventilated patients were co-managed in the ICU. Predominant etiology was Graves' disease (88%, n = 15), with a case of gestational trophoblastic disease. Main precipitants were medication non-adherence (50%, n = 8), infection (23%, n = 4), and new thyroid diagnosis (29%, n = 5). Treatment was initiated within 6 hours of presentation in 82% of cases (n = 14). In the remaining 3 cases, treatment was delayed by up to 9 hours while awaiting TFT results, as these patients had no prior history of thyrotoxicosis. Aside from one death within 3 days due to thyroid storm and tubo-ovarian abscess, there was no other mortality at up to 180 days after discharge.

### CONCLUSION

Timely intervention in thyroid storms is critical to optimize patient outcomes. However, diagnosis can be challenging, particularly in patients without known thyroid disorders, which may result in delayed treatment. As such, it is essential to initiate therapy promptly based on strong clinical suspicion, even prior to laboratory results. Additionally, addressing issues related to treatment non-adherence through targeted patient education is vital to reduce the incidence of thyroid storm.