15.0 mg/dL, ionized calcium 8 mmol/L, phosphorus 2.77 mg/dL, intact parathyroid hormone 415 pg/mL, 25 (OH) D 55.3 ng/mL, ALP 145 U/L, and eGFR 33.3 mL/min. On physical examination, all were unremarkable except for mild dehydration. Her Thai mini-mental state examination score (TMSE) was 11/30 which was compatible with mild cognitive impairment. After saline infusion, her TMSE score improved, and serum calcium gradually decreased to less than 12.0 mg/dL. A Sestamibi scan revealed a single parathyroid adenoma. Alendronate was continued due to the very high risk of osteoporotic fracture. In this case, we demonstrated a PHPT patient who presented with rapid progressive dementia which was one of the neuropsychiatric manifestations, similarly shown in other series.

KEYWORDS
rapid progressive dementia, primary hyperparathyroidism

PP-B-17

EVALUATING PRESCRIBING PATTERN, OUTCOMES AND TACHYPHYLAXIS PREVALENCE OF INJECTABLE CALCITONIN IN HYPERCALCEMIA

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INTRODUCTION
Despite recommendations advocating to limit calcitonin use to 48 to 72 hours, the true occurrence of tachyphylaxis in the population and the extent of its impact on serum calcium levels is not known. This current study aimed to evaluate prescribing patterns, outcomes, and tachyphylaxis prevalence of injectable calcitonin in hypercalcemia.

METHODOLOGY
A retrospective observational study of hospitalised patients' medical records was conducted in three government tertiary hospitals in Malaysia. Included patients were adults aged ≥18 years old, diagnosed with all-cause hypercalcemia, and treated with injectable calcitonin from 1st January 2020 to 31st December 2022. Those patients on calcitonin ≥48 hours with at least one serum calcium at 48 hours were included and analysed for calcitonin prescribing pattern, changes in serum calcium, the prevalence of tachyphylaxis and factors associated with calcium reduction.

RESULTS
A total of 64 patients on calcitonin were recruited, calcitonin monotherapy (n=53) and combination therapy with calcitonin and bisphosphonate (n = 11). The reduction in corrected serum calcium at 48 hours after treatment initiation was greater in combination therapy 0.76 mmol/L (IQR 0.98) versus 0.26 mmol/L (IQR 0.43, p = 0.022) in monotherapy. Tachyphylaxis was observed in 32.1% and 27.3% of patients with calcitonin monotherapy and combination therapy respectively (p >0.05). Pre-corrected serum calcium was significantly associated with calcium reduction at 48 hours after treatment initiation (AOR:0.62, 95% CI: 37.83, 70.94, p <0.001). Trends showed that monotherapy did not reduce serum calcium at 48 hours after treatment initiation as much as the combination therapy group, but the difference was non-significant (p = 0.064).

CONCLUSION
The overall prevalence of tachyphylaxis associated with calcitonin in this study was 31.2% at 48 hours. The study findings suggest that it is important to initiate calcitonin in combination with bisphosphonate at a weight-based dose of ≥4 IU/kg/dose and constantly adjust the dose according to clinical response.

KEYWORDS
calcitonin, tachyphylaxis, hypercalcemia, bisphosphonate