

thyroidectomy was  $17.08 \pm 0.78$  years. Two out of 5 patients developed hypocalcaemia postoperatively. None had vocal cord paralysis.

#### CONCLUSION

From this cohort, the onset of hypothyroidism post-RAI was varied. Lower doses of initial RAI were seen in patients who had relapsed and required a second treatment. Total thyroidectomy in children and adolescents is safe with minimal complications under the care of a high-volume surgeon.

## EP\_P028

### GRAVES' DISEASE WITH OSCILLATING THYROID FUNCTION

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#### INTRODUCTION/BACKGROUND

Oscillating thyroid status between hyper- and hypothyroidism in Graves' disease is a rare phenomenon. The change in the thyroid status is likely attributed to the simultaneous presence of both thyroid-stimulating autoantibodies (TSAbs) and TSH-blocking autoantibodies (TBABs) in an individual.

#### CASE

We report the case history of a 14-year-old female who presented with goitre, palpitations and weight loss without eye signs. Thyroid function test revealed suppressed thyroid stimulating hormone and mildly raised free thyroxine. Antithyroid globulin antibodies and antithyroid peroxidase were both strongly positive. She was initially diagnosed as Hashimoto thyroiditis in hashitoxicosis and started on carbimazole. Four months later, the patient progressed into hypothyroid state requiring thyroxine therapy for 2 years. She however became hyperthyroid again in the past 1 year. Further evaluation revealed raised TSH receptor antibodies (TRAb) and hyperfunctioning thyroid gland on Tc99m thyroid radioisotope study, leading to a revision of diagnosis to Graves' Disease.

#### CONCLUSION

This case demonstrates Graves' disease with alternating thyroid status poses a challenge to the patient's diagnosis and management. Measurement of TRAb together with TSBAs and TBABs would be helpful for diagnosis and to objectively explain the alternating thyroid function. Management includes close monitoring of thyroid function

and possibly definitive therapy of radioactive iodine ablation or surgery in selected cases.

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### POLYOSTOTIC FIBROUS DYSPLASIA: RESPONSE TO ZOLEDRONIC ACID

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#### INTRODUCTION/BACKGROUND

Fibrous Dysplasia is a rare developmental bone disorder in which fibro-osseous tissue replaces normal bone tissue. It can manifest either monostotic or polyostotic associated with McCune-Albright syndrome. Bisphosphonates such as pamidronate and alendronate have been used to improve bone mineral density due to antiresorptive properties. However, the literature on the use of zoledronate is limited.

#### CASE

A 10-year-old female presented with a fracture of the right midshaft of the femur following a trivial fall. She had a history of precocious puberty and limping gait since the age of four years old. On examination, she was tall for her age and there was thoracolumbar scoliosis with huge café au lait patches at her lower back. Biochemically, she had elevated alkaline phosphatase level and low serum vitamin D. Skeletal survey revealed multiple patchy areas of lucency with irregular margins in the long bones, skull and pelvis. Bone mineral density was low suggestive of osteoporosis. Her fracture of the right midshaft of the femur was due to polyostotic fibrous dysplasia with underlying McCune-Albright syndrome. As bisphosphonate is required in fibrous dysplasia, she was treated with multiple doses of intravenous zoledronate starting at 0.0125 mg per kg which she tolerated well and then increased to 0.025 mg per kg. Her response was good, evidenced by reduced alkaline phosphatase level and improved bone mineral density. Her fracture healed with no complications or incidence of new fracture.

#### CONCLUSION

The administration of intravenous zoledronate enhances bone mineral density and demonstrates improvements in bone biomarkers. It was well tolerated and should be used in McCune-Albright syndrome with fibrous dysplasia of the bone.