PET-CT showed no uptake, and arterial stimulation venous sampling (ASVS) was negative for insulinoma or nesidioblastosis. PEG precipitation of random insulin indicated low insulin recovery (7.5%), confirming IAA interference. She was started on diazoxide and a low-glycemic diet with small frequent meals. Her hypoglycaemia spontaneously resolved within three months, even after stopping diazoxide prior to ASVS. Given the negative ASVS, positive IAA, and spontaneous resolution, IAS was diagnosed. She was commenced on acarbose 50 mg TDS and remains well, with continuous glucose monitoring showing infrequent hypoglycemia and milder postprandial hyperglycemia.

### CONCLUSION

This case underscores the diagnostic complexity of differentiating IAS from cystic insulinoma in a patient with endogenous hyperinsulinemic hypoglycemia, a cystic pancreatic lesion, and elevated IAA.

## EP_A050

## MINIMALLY INVASIVE MANAGEMENT OF PARATHYROID ADENOMA: A CASE OF SUCCESSFUL THERMAL ABLATION IN A HIGH-RISK ELDERLY PATIENT

*https://doi.org/10.15605/jafes.040.S1.058*

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### INTRODUCTION/BACKGROUND

Primary hyperparathyroidism (PHPT) due to parathyroid adenoma often requires parathyroidectomy. However, surgery may not be feasible in high-risk patients. Thermal ablation techniques, such as microwave ablation (MWA), offer a minimally invasive alternative. We present a case of an elderly woman who was successfully treated with microwave ablation for severe hypercalcemia caused by a parathyroid adenoma.

### METHODOLOGY

An 81-year-old semi-dependent female was diagnosed with parathyroid hormone (PTH)-dependent hypercalcemia in 2020 with a calcium level at 3.4 mmol/L (2.2-2.6) and an iPTH level at 69.7 pmol/L(1.96-8.49). Parathyroid ultrasound and 99m Tc MIBI parathyroid scintigraphy confirmed the presence of a right upper pole parathyroid adenoma, measuring 1.7 x 1.1 x 2.4 cm. Preoperative evaluation revealed an ectatic ascending thoracic aorta and aortic arch, causing tracheal deviation and restrictive lung disease, which placed her at high surgical risk.

Initially, she was managed conservatively with cinacalcet 25-50 mg bd and denosumab 30-60 mg every 3-6 months. Unfortunately, her condition worsened despite intensified medical therapy, resulting in frequent hospitalizations due to severe hypercalcemia (calcium >3.5 mmol/L). Her iPTH levels increased to 204.7 pmol/L, and the adenoma grew to 2.1 x 1.9 x 3.1 cm. Given her deteriorating condition, she underwent ultrasound-guided microwave ablation of the adenoma.

Two days after the procedure, her iPTH levels dropped by 80% to 11.3 pmol/L and stabilized between 35–40 pmol/L in the outpatient setting. Her post-procedural calcium level was within the mild hypocalcaemia range (2.8-3.0 mmol), and she no longer needed cinacalcet or pain medication. She experienced significant improvements in her physical function and could engage in static exercise. A follow-up ultrasound one month post-procedure revealed a 56% reduction in the adenoma's volume.

### CONCLUSION

Ultrasound-guided microwave ablation is an effective non-surgical treatment for PHPT in high-risk patients. It provides clinically significant improvements, reduces medication requirements, and enhances the quality of life.

## EP_A051

## WHEN TREATMENT BACKFIRES: SEVERE HYPOTONIC HYPONATREMIA INDUCED BY ANGIOTENSIN RECEPTOR BLOCKERS

*https://doi.org/10.15605/jafes.040.S1.059*

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### INTRODUCTION/BACKGROUND

Angiotensin receptor blockers (ARBs) are commonly used antihypertensive medications. ARBs may cause worsening of renal function and hyperkalemia, necessitating renal profile monitoring after their initiation. We report a case of severe hypotonic hyponatremia in an elderly patient who was started on valsartan.

### CASE

A 70-year-old Malay female with underlying hypertension was recently prescribed valsartan 80 mg OD by her primary care (PC) doctor for blood pressure optimization. Notably, she had a history of adrenal insufficiency secondary to

exogenous steroid use but had successfully discontinued oral hydrocortisone after an adequate Synacthen test response 2 years ago. Four days after starting valsartan, she presented to the Emergency Department (ED) with dizziness and vomiting. Laboratory results revealed severe hypotonic hyponatremia (serum sodium 110 mmol/L, serum osmolality 259 mOsm/kg, urine osmolality 247 mOsm/kg, urine Na 71 mmol/L) and hyperkalemia (serum potassium 7.0 mmol/L). In the ED, she was given a lytic cocktail and 150 cc of 3% saline. Prior to starting valsartan, her serum sodium at the PC clinic was 135 mmol/L. She denied using any over-the-counter or traditional medications. Her blood pressure and blood glucose levels were normal throughout hospitalization, making adrenal insufficiency less likely. Further investigations, including morning serum cortisol (500.4 nmol/L) and TSH (0.54 mIU/L, NR 0.4-4.0 mIU/L), were normal. Thus, the diagnosis of severe hypotonic hyponatremia secondary to valsartan was made. After withholding valsartan, her symptoms resolved, the serum sodium and potassium normalized, and she was discharged well 4 days later.

**CONCLUSION**

ARBs can lead to severe hyponatremia by blocking the angiotensin II receptor, which inhibits renal tubular sodium reabsorption. This effect is particularly pronounced in the elderly and individuals on concomitant thiazide therapy. Although rare, ARB-associated hyponatremia should be considered in patients with hypotonic hyponatremia when other causes have been ruled out.

## EP_A052

### A SILENT THREAT: LARYNGEAL INVOLVEMENT IN PAGET'S DISEASE LEADING TO AIRWAY COMPROMISE

*https://doi.org/10.15605/jafes.040.S1.060*

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**INTRODUCTION/BACKGROUND**

Paget's disease of bone (PDB) is a chronic skeletal disorder characterized by disorganized bone remodelling, often affecting the skull, spine, pelvis and long bones. While complications such as fractures, arthritis and hearing loss are well-documented, laryngeal involvement leading to acute airway obstruction is exceptionally rare. To our knowledge, no previous case reports have described PDB affecting the thyroid and arytenoid cartilages, resulting in airway compromise.

**CASE**

A 45-year-old male with hypertension and eczema was diagnosed with a variant of PDB (normal alkaline phosphatase) in 2018, following an evaluation for right knee and ankle pain that began in 2016. Extensive investigations, including a bone biopsy, revealed nonspecific sclerosis, normal ALP, and mildly elevated bone formation markers (P1NP). A Tc-99m MDP bone scan showed multiple hot spots involving the skull, clavicles, ribs, L5, right elbow, both knees and both ankles. He was initiated on yearly intravenous zoledronate (4 mg). In 2022, he sustained a low-impact distal third right ulna fracture, necessitating a locking plate. The fracture site biopsy confirmed Paget's disease.

In 2024, he presented with acute upper airway obstruction. A CT neck scan revealed expansile lytic lesions involving thyroid and arytenoid cartilages, causing significant airway narrowing. An emergency tracheostomy was performed to secure his airway. A repeated Tc-99m MDP bone scan demonstrated disease progression, with worsening involvement of the thyroid and cricoid cartilages.

**CONCLUSION**

This case highlights a rare and potentially fatal complication of PDB, with airway obstruction due to expansile lytic lesions of the laryngeal cartilages. Given the absence of prior reports on this manifestation, clinicians should remain vigilant for atypical presentations of PDB, particularly in patients with progressive disease. Early diagnosis and intervention are critical to preventing life-threatening outcomes.

## EP_A053

### MARINE-LENHART SYNDROME: A RARE CASE OF AUTOIMMUNE HYPERTHYROIDISM AND FUNCTIONAL THYROID NODULE

*https://doi.org/10.15605/jafes.040.S1.061*

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**INTRODUCTION/BACKGROUND**

Marine-Lenhart syndrome is a rare thyroid disorder characterized by the presence of Graves' disease and autonomously functioning thyroid nodules. This dual