Adult E-Poster

via Congo red staining. Transthoracic echocardiography showed right atrial and right ventricular collapse, consistent with cardiac tamponade. Emergency pericardiocentesis was performed, and cytology of the pericardial fluid confirmed metastatic MTC.

Further laboratory evaluation revealed markedly elevated serum calcitonin and carcinoembryonic antigen (CEA), along with raised urinary levels of normetanephrine, metanephrine, and 3-methoxytyramine, suggesting a paraneoplastic neuroendocrine profile. Germline RET mutation analysis could not be performed due to resource limitations.

Given the presence of distant metastases and extensive locoregional disease, the patient was scheduled for systemic therapy with Cabozantinib with plans for total thyroidectomy following tumour debulking.

CONCLUSION

This case highlights a rare and aggressive presentation of medullary thyroid carcinoma (MTC), manifesting as cardiac tamponade — a life-threatening complication seldom associated with thyroid malignancies. The diagnosis was confirmed through cytological evaluation and supported by elevated tumour markers and imaging. This case underscores the importance of considering metastatic MTC in patients with unexplained pericardial effusion and systemic symptoms, especially in the presence of a suspicious thyroid lesion. Prompt recognition and multidisciplinary management are crucial in optimizing outcomes in such advanced and atypical presentations.

EP_A169

ECTOPIC ACTH SYNDROME SECONDARY TO METASTATIC NEUROENDOCRINE CARCINOMA FROM A PRIMARY MEDIASTINAL TUMOUR

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INTRODUCTION/BACKGROUND

We report a case of ectopic ACTH syndrome secondary to metastatic neuroendocrine neoplasm of the anterior mediastinum.

CASE

A 26-year-old male was diagnosed at age 23 to have ectopic ACTH syndrome secondary to neuroendocrine tumour of mediastinum, size 7 x 6 cm. Gallium-68 DOTATATE PET-CT revealed somatostatin receptor (SSTR) avid disease in mediastinum only, Krenning 3. He underwent surgical excision and achieved remission postoperatively. HPE reported ACTH-producing typical mediastinal carcinoid with nodal involvement, Ki67 ~ 10%, mitosis count 1 per 10 high power field, and metastatic typical carcinoid of the excised para-aortic lymph node. 6 months later, ACTH was noted to be increasing in trend although he was not Cushingoid clinically. FDG and Dotatate PET-CT scan revealed metastatic lymphadenopathy to the left supraclavicular fossa and mediastinum with low SSTR affinity (Krenning score 1 and 2). He was referred to the surgical and oncology team for further treatment. However, he opted for a second opinion in an overseas institution and started proton therapy and everolimus there, which was discontinued within weeks due to side effects.

He presented again a year later, not overtly Cushingoid, but he then developed more prominent Cushingoid signs and hypokalaemia within months. Biochemical investigation showed persistent disease with increasing ACTH. Ketoconazole was initiated. Dotatate and FDG PET-CT imaging revealed progressive metastatic lymphadenopathy involving cervical, supraclavicular, mediastinal and coeliac regions. The lesions had concordant FDG and Dotatate avidity but were more FDG-avid (Dotatate avidity Krenning 2). Multidisciplinary team discussion concluded a diagnosis of neuroendocrine carcinoma with progressive disease, thus requiring chemotherapy. He was referred to oncology team but remained undecided about proceeding further.

CONCLUSION

Neuroendocrine tumours can have heterogeneity in grade within a given lesion, in different sites, and over time. SSTR PET imaging aids in stratifying tumour differentiation thus guiding diagnostic and therapeutic decisions, as illustrated in this case.

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THE MAN WITH MALIGNANT INSULINOMA: CHALLENGE IN MANAGEMENT

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INTRODUCTION/BACKGROUND

Insulinoma is an uncommon pancreatic neoplasm that results in excessive insulin production. Excessive insulin

production and recurrent hypoglycemia render it a potentially lethal condition.

CASE

A 41-year-old male with comorbid hypertension and dyslipidaemia presented with right upper quadrant pain for two days, altered bowel habits, decreased appetite, and weight loss. He underwent assessment to rule out malignancy. During hospitalisation, he developed recurrent asymptomatic hypoglycaemia despite the administration of dextrose infusion. He was confirmed to have endogenous hyperinsulinism, evidenced by increased blood C-peptide levels of 689 pmol/L during a hypoglycaemic episode with plasma glucose 3.0 mmol/L. CECT of the abdomen and pelvis demonstrated rim-enhancing hypodense lesions in the liver, with the largest lesion measuring 8.1 x 7.5 x 8.8 cm (AP x W x CC). There was also a hypodense lesion in the body of pancreas (0.7 x 0.8 cm). The liver biopsy revealed poorly differentiated neuroendocrine carcinoma. He was co-managed by the surgical and oncology teams. The lesion was unresectable, and he was also not a suitable candidate for arterial embolisation. He was prescribed diazoxide tablets to alleviate hypoglycaemia. Despite the regular intake of diazoxide, his hypoglycaemia worsened, finally resulting in his death.

CONCLUSION

Insulinoma is a neoplasm with a 10% likelihood of malignancy. Individuals with insulinoma often present with Whipple's triad, characterised by hypoglycaemia symptoms, plasma glucose concentrations below 3.1 mmol/L, and symptom relief after ingestion of a high-glucose meal. Insulinoma is best treated with surgical excision. The main and challenging management issue in insulinoma is addressing recurrent hypoglycaemia in patients with unresectable tumours. Octreotide, a somatostatin analogue, is often used to reduce insulin production. Diazoxide, on the other hand, inhibits insulin secretion and stimulates glycogenolysis to enhance glucose release from the liver. In the end, a patient with malignant insulinoma may die from severe hypoglycaemia or metastatic malignancy.

EP_A171

ATYPICAL PARATHYROID TUMOR: CHALLENGES OF DIAGNOSIS AND MANAGEMENT

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INTRODUCTION/BACKGROUND

Differentiating between benign and malignant parathyroid nodules is a clinical and pathological challenge. Unlike other tumours, parathyroid carcinoma lacks definitive preoperative biomarkers. The diagnosis is frequently made retrospectively based on surgical pathology.

CASE

A 55-year-old female came to our hospital with progressive bilateral weakness of lower extremities 6 months ago, resulting in partial immobilization, bone pain, and contracture of lower extremity. Laboratory results showed high serum calcium (13.9 mg/dL) and intact PTH (2,729 pg/mL). Neck ultrasound revealed a left parathyroid nodule mass. The MIBI scan showed a negative result. Bone X-ray of vertebra and extremities showed multiple lytic lesions and osteopenia. She was treated with zoledronic acid and scheduled for subtotal parathyroidectomy. After parathyroid resection, iPTH levels decreased significantly. However, she had low calcium levels, indicating hungry bone syndrome, and we managed with oral and IV calcium to restore normal calcium levels. The histopathology of parathyroid nodules showed neoplasms of parathyroid origin that show atypical histologic features but without unequivocal capsular, vascular, or perineural invasion. During hospitalizations, she had a pathological closed fracture of the right tibia. The orthopedic surgeon placed an internal fixation in the right tibiae and did a bone biopsy, no malignant cells from bone histopathology. We diagnosed her as atypical parathyroid tumor (APT) with metabolic bone disease and gave her IV Denosumab. After routine physiotherapy, she could mobilize around the bed and was discharged eventually with normal calcium levels. We planned for serum calcium and PTH evaluation 3-6 months after surgery.

CONCLUSION

APT is a distinct and enigmatic entity between benign adenoma and malignant carcinoma of parathyroid tumour. These tumours exhibit some worrisome histologic features of malignancy but lack definitive evidence of parathyroid carcinoma. APT is usually indolent. The prognosis is