2% of all pNETs (Yao et al.). Although glucagonoma can occur in multiple endocrine tumor syndromes (e.g., MEN-1), most cases are non-hereditary (John & Schwartz). The typical 4Ds presentation are diabetes (DM), depression, dermatosis, & deep vein thrombosis (DVT) (Cunha-Silva et al.). About 50% of glucagonoma patients have DVT during their disease course (Feingold et al.). Most reported DVT cases in glucagonoma are either lower limb DVT or pulmonary embolism (Teixeira, Nico & Ghideti; Castro et al.). To our knowledge, there is no report of a cerebral venous sinus thrombosis (CVST) as the first presentation for glucagonoma.

Clinical Case: A 67-year-old male with a history of psoriasis & benign prostatic hyperplasia presented to the emergency department with a diffuse headache. He was sent home with conservative management. Four days later, he developed acute left-sided weakness with numbness & facial droop. CT head with contrast revealed a superior sagittal sinus thrombosis extending into the right transverse & right sigmoid sinuses. Heparin infusion was initiated. Due to the extensive sinus vein thrombosis & lack predisposing conditions, a pan CT was done for possible malignancy. The scan showed a solid, well-defined, markedly enhancing lesion in the pancreatic tail, suggestive of a NET. At the same time, a new diagnosis of type 2 DM was made based on HbA1C of 11.8%. The patient denied any diarrhea, fever, abdominal pain or episodes suggestive of hypoglycemia. However, he endorsed night sweats with weight loss. His family history was significant for a brother who had a pNET that was resected. Endocrinology was consulted, & a workup for pNET was ordered. Chromogranin A (CgA) was elevated at 439.9 ng/ml (<=82), while on PPI. 24-hour urine cortisol was normal. PTH, serum calcium, & the pituitary hormonal panel were all normal. hCG & CEA were normal. Given the new onset DM & DVT plasma glucagon was requested & came back elevated at 202 pg/ml (reference range 80 pg/ml). MRI showed an hypervascular T2 isointense lesion at the pancreas' tail measuring 10 x 11 x 10 mm. A Ga68-DOTATATE PET scan was ordered. With this constellation of findings, we initiated somatostatin analog therapy while surgical resection was planned. We referred the patient to medical genetics.

Conclusion: DVT is a common presentation in glucagonoma & a major cause of mortality. The possible mechanism appears to be related to increased secretion of factor X by pancreatic alpha cells (Lobo et al.). Although DVT is not unusual, an extensive CVST as the first presentation in glucagonoma has not been reported. In this case, & in addition to unexplained DVT, the new diagnosis of DM in an elderly patient raised the suspicion of secondary causes. Such a presentation should encourage clinicians to broaden the differential diagnoses, including pNET.

Tumor Biology

ENDOCRINE NEOPLASIA CASE REPORTS

Clinical Activity of Selpercatinib in RET Mutant Pheochromocytoma-Case Reports

Bhavana Konda, MD, MPH[1], Erminia Massarelli, MD, PhD, MS[2], Jennifer Wright, MD[3], Victoria Soldatenkova, MSc[3], Roderick Clifton-Bligh, BSc (med) MBBS PhD FRACP FFSc (RCPA)[4].

[1]The Ohio State University Comprehensive Cancer Center, Columbus, OH, USA, [2]City of Hope, Duarte, CA, USA, [3]Eli Lilly and Company, Indianapolis, IN, USA, [4]Royal North Shore Hospital and Kolling Institute, University of Sydney, Sydney, Australia.

Activating *RET* gene alterations have been reported in solid tumors including the rare cancer, pheochromocytoma (PHEO) found sporadically and in familial multiple endocrine neoplasia type 2 (MEN2) syndromes. Selpercatinib is a highly selective and potent small molecule RET kinase inhibitor that has demonstrated marked and durable anti-tumor activity in diverse RET-altered solid tumors. Described are the initial 3 PHEO patients treated with selpercatinib (LIBRETTO-001/NCT03157128). **Case 1:** 70-year-old white male with MEN2A and a history of medullary thyroid cancer (MTC) and PHEO s/p thyroidectomy and adrenalectomy, received MIBG in 1991 and 2016 due to symptom reoccurrence. Progressive metastatic disease associated with severe hypertension was treated with Lutate in 2017 and germline RET mutation p.Cys634Phe was confirmed. After developing severe back pain due to a T6 vertebral metastasis, he began selpercatinib treatment. As of Mar 2020, he has a partial response (PR) as assessed by investigator; his back pain resolved, normetanephrine and metanephrine levels decreased, and has ceased alpha and beta blockers. He remains on treatment with only grade 1-2 adverse events, none requiring interruption or dose modification. **Case 2:** 51-year-old white female with MEN2A and history of MTC and PHEO s/p thyroidectomy and adrenalectomy in 2010. She developed metastatic PHEO in 2013, with multiple bone, omentum, lung, liver, and spleen metastases. Between 2013 and 2018 she was treated with multiple courses of radiation and, additional surgical resections; a PR with sunitinib lasted 13 months followed by temozolomide/capecitabine treatment. A bone lesion biopsy in 2018 confirmed RET C618S mutation and with her disease progression and uncontrolled bone pain, she began selpercatinib treatment, experiencing a PR. After 5.5 months in the study, she discontinued treatment due to disease progression. **Case 3:** 45-year-old African American female diagnosed with sporadic PHEO in 1996, s/p multiple surgical resections. She received 2 cycles of cyclophosphamide/vincristine/dacarbazine without clinical benefit. I-131-MIBG therapy with autologous stem cell rescue in 2017 improved blood pressure, palpitations, and flushing but without tumor shrinkage while abdominal pain persisted. Somatic M918T *RET*-mutation was confirmed, and she began selpercatinib treatment in 2018 with symptom resolution and improved plasma metanephrine levels. She required dose reduction for grade 3 palmar-plantar erthrodysesthesia and had stable disease for 22 months until a new bone metastasis was identified. Due to ongoing clinical benefit, she remains on treatment despite disease progression. **Conclusion:** These are the initial reports of RET-mutant PHEO patients treated with selpercatinib adding to the diversity of RET-altered tumor types that may benefit from a selective RET inhibitor.

Tumor Biology

ENDOCRINE NEOPLASIA CASE REPORTS

Composite Pheochromocytoma With Ganglioneuroblastoma: A Case Report