A Rare Cause of Acute Renal Failure in Elderly Patient: Verner-Morrison Syndrome: Letter to the Editor

İleri Yaştaki Hastalarda Tekrarlayan Akut Böbrek Yetmezliğinin Nadir Bir Nedeni: Verner-Morrison Sendromu

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WDHA (watery diarrhea, hypokalemia, and achlorhydria) syndrome is an unusual paraneoplastic condition caused by excess vasoactive intestinal polypeptide (VIP) secreted by certain tumors. The sydrome has also been called vipoma, endocrine cholera, pancreatic cholera syndrome, watery diarrhea syndrome, and Verner-Morrison syndrome. The annual incidence of these tumors is estimated to be about 1 per 10 000 000 individuals.[1] Watery diarrhea and hypokalemia are main clinical manifastations. VIP is secreted by a tumor of the pancreatic islets (90%), colon, bronchi, adrenal glands, liver and sympathetic ganglia.[2] Under normal conditions, the low VIP plasma concentration functions as a neurotransmitter in healthy subjects. This level of VIP has been impossible to ascertain any endocrine role. Marked eleveted VIP plasma level in Vipoma syndrome lead to intestinal secretory diarrhea, resulting in hypovolemia, hypokalemia, hypochlorhydria and acidosis. We reported a case that presented with chronic diarrhea and recurrent acut renal failure in an elderly man.

A 65-years old man presented to the emergency department with chronic watery diarrhea. Physical examination was normal except pain on the epigastric area and weakness. His past medical history revealed reversible renal failure and multible hospitalizations for dehydration for 6 months. Laboratory tests showed levels of sodium 139 mEq/L (135-145 mEq/L), potassium 2.6 mEq/L (3.6-4.8 mEq/L), calcium 10 mg/dL (8.9-10.1 mg/dL), alkaline phosphatase 400 U/L (98-251 U/L), lactate dehydrogenase 300 U/L (91-198 U/L), aspartate aminotransferase 60 U/L (12-31 U/L) and bicarbonate 18 mEq/L (22-29). The diagnosis was based on radiological imaging and immunohistochemistry study of the tumor. Abdominal ultrasound and abdominal computed tomography (CT) scanning demonstrated a 30 mm mass involving the head of the pancreas without evidence of metastases. The surgical resection of the tumor was followed by immediate alleviation of symptoms and there has been no evidence of recurrence during the past 1 year of follow-up.

Seven described neuroendocrine tumors can cause diarrhea: gastrinomas (Zollinger-Ellison syndrome), VIPomas (Verner-Morrison syndrome), glucagonomas, somatostatinomas, pancreatic endocrine tumors secreting calcitonin, medullary thyroid cancer, and carcinoid syndrome.[3,4] Elevated serum VIP levels cause increased intestinal secretion of Na+, K+, HCO3, and Cl, as well as bone resorption, vasodilation, and inhibition of gastric acid section. These effects lead to a well-defined clinical syndrome, characterized by watery diarrhea, hypokalemia, and hypochlorhydria. Despite this, the VIPoma syndrome can be difficult to diagnose. VİPomas are rare tumors; 100% of patients present with a primary complaint of watery diarrhea refractory to traditional medical treatment. Before the initiation of any curative and palliative therapy, the patient's life-threatening electrolyte and volume status abnormalities must be corrected. Approximately 50% of patients have metastatic spread at the time of diagnosis. Medical management of patients with unresectable disease and or metastasis includes octreotide (analog of somatostatin), hepatic artery embolization, radiofrequency ablation, hepatic transplantation, radioactive octreotide, intravenous chemoterapy, alpha interferons, and cryotherapy.[5] Each has been used in selected cases.

In summary, despite the difficulty in diagnosing such rare tumors in the elderly, there are multiple teratment modalities.

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