Severe Hyponatremia Presenting as Paraneoplastic Syndrome in a Patient with Small Cell Carcinoma of Gallbladder

Sir,

Small cell carcinoma (SCC) of the gallbladder is a rare clinicopathologic entity. Only 74 cases have been reported in the literature. It was first described by Albores-Saavedra et al. in 1981. Paucity of data exists on this uncommon aggressive tumor. It tends to metastasize early to lymph nodes and surrounding liver parenchyma, making it challenging for the physician to diagnose at an earlier, hence treatable stage. Gallbladder carcinoma, in general, is reported to be associated with various paraneoplastic syndromes like dermatomyositis, Cushing syndrome, acanthosis nigricans, sensory neuropathy, hypercalcemia but the distinctive association of hyponatremia has been described only with SCC of the gallbladder. Thus, it can be an independent indicator of the small cell histology of the gallbladder cancer when it is suspected clinically and radiologically. Hyponatremia in association with SCC of gallbladder was first described by Ng et al. in their case report in 2010. So far, only handful of cases has been reported in this context.

A 72-year-old woman presented to medical OPD with complain of yellowish discoloration of skin and urine coupled with epigastric pain and pruritus for 3 weeks. This was preceded by anorexia and lethargy for few months. She had type 2 diabetes mellitus for 25 years and was morbidly obese. Examination confirmed jaundice and enlarged right lobe of liver with a mass in right hypochondrium. Her ultrasound (US) abdomen exhibited an almost 5 x 5 cm gallbladder mass infiltrating surrounding liver parenchyma and portal hepatic lymphadenopathy. Her complete blood picture was normal. The liver function tests showed cholestasis with direct hyperbilirubinemia and raised alkaline phosphatase. Her serum sodium was 128 mEq/L with normal potassium and serum calcium of 10.2 mmol/L. She was advised plain water restriction. Computerised tomography (CT) scans of chest, abdomen and pelvis confirmed gallbladder neoplastic lesion with liver parenchyma, hepatic and abdominal lymph nodes involvement. No lung metastasis or primary lesion was noticed. Advanced stage (stage 4) gallbladder cancer was diagnosed and she underwent fine needle aspiration (FNA) of the lesion under US guidance. The sample stained positive for chromogranin A. She and her family refused chemotherapy or aggressive management, including endoscopic retrograde cholangopancreaticography (ERCP). She was kept on conservative management but after 4 months she presented with worsening consciousness and hyponatremia of 106 mEq/L with serum osmolality of 230 mOsm/kg (normal: 285 - 295 mOsm/kg) and urine osmolality of 220 mOsm/kg (normal: 50 - 1200 mOsm/kg), urine Na- 50 mEq/L (< 10 meq/l). The 24-hour urine cortisol levels were normal. She was started on hypertonic saline with close monitoring of serum sodium levels. She deteriorated further and died with persistent hyponatremia and deepening jaundice – progressive hepatic failure. She had survived 7 months since her diagnosis.

Syndrome of inappropriate antidiuretic hormone secretion (SIADH) can complicate gallbladder carcinoma like in pulmonary SCC. Less than 1% of gallbladder cancers are SCC of neuroendocrine origin. Chemotherapy in the form of cisplatin and etoposide might provide the survival benefit of 4 months in this aggressive tumor with median survival of 9 months. No screening tests are available and the late diagnosis results in poor survival of the patient.

REFERENCES


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