Asymptomatic primary squamous cell carcinoma of the liver

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An elderly woman with a family history of cholangiocarcinoma is diagnosed with primary squamous cell carcinoma of the liver after clinical evaluation, imaging, and tumor markers suggest that metastatic SCC to the liver was not likely.

Primary squamous cell carcinoma (SCC) of the liver is a rare disease and there are few reports on it in the literature. Its physiopathology is associated with hepatic teratomas, cysts, hepatolithiasis, or cirrhosis that in the setting of chronic inflammation undergo metaplasia and subsequent malignant transformation.[1] Given the rarity of this disease, there is no standardized treatment available for it.[1]

Case presentation

A 78-year-old Hispanic woman with a history of diabetes and hypertension was admitted with altered mental status. Significant family history revealed a brother who died at age 72 years from cholangiocarcinoma. On admission, the patient was noted to be somnolent, had no signs of jaundice, abdominal distention, tenderness, Cullens or Grey Turner's sign. Laboratory workup was remarkable for a calcium level of 15.3 mg/dL (normal range, 7.6-10.4 mg/dL), parathyroid hormone level of 7.7 pg/mL (15-65 pg/mL), rt-PTH level of 82 pg/mL (14-27 pg/mL), an alkaline phosphatase level of 262 U/L (35-105 U/L), gamma-glutamyl transpeptidase level of 291 U/ L (4-39 U/L), amylase of 164 U/L (25-124 U/L), and lipase level of 295 U/L (13-60 U/L). Her aspartate aminotransferase and alanine aminotransferase levels were within normal limits.

The hypercalcemia resolved after intravenous hydration and pamidronate. A computed tomography scan with contrast of her abdomen to evaluate a possible malignancy confirmed a lesion measuring 17.5 cm in the right upper quadrant. The mass had air and contrast within its center because of the presence of a colonohepatic fistula. Magnetic resonance cholangiopancreatography showed no pancreatic duct dilation or masses compromising the pancreas. A colonoscopy was performed showing a large fungating mass in the distal ascending colon–hepatic flexure. Biopsy revealed poorly differentiated invasive SCC. Tumor cells were positive for CK5/6, p63, 34BE12 and negative for CK20, CK7, HMB-45. Ear, nose, and throat; gynecological, and lung evaluations were negative for malignancy. Further evaluation of tumor markers was negative for HEP-PAR1 (suggesting biliary origin) and negative for TTF-I (making metastases from lung or thyroid less likely). Expression of CK19 strongly suggested primary tumor transformation from chronic inflammation of the biliary epithelium. With all of these findings, a diagnosis of primary SCC of the liver was made. Given the patient's ECOG performance status of 4, she opted for home hospice.

Discussion

Case reports describe primary SCC of the liver as a solitary solid tumor arising from nonparasitic hepatic cysts, teratomas, hepatolithiasis, and hepatic cirrhosis.[2] In cases without any prior liver pathology, it is thought that there is malignant transformation within the submucosa or stem cells.[3] A family history of cholangiocarcinoma, as in our case, suggests a possible genetic predisposition.[4] The possibility of hepatic metastatic disease from the head, neck, thyroid, lung, cervix, or rectum should always be ruled out. In our patient, diagnosis of primary SCC of the liver was made as all clinical evaluation, imaging, and tumor markers suggested that metastatic SCC to the liver was not likely. Interventions and treatment is not standardized though some case reports have reported surgical resection, hepatic arterial chemoembolization, chemotherapy, and

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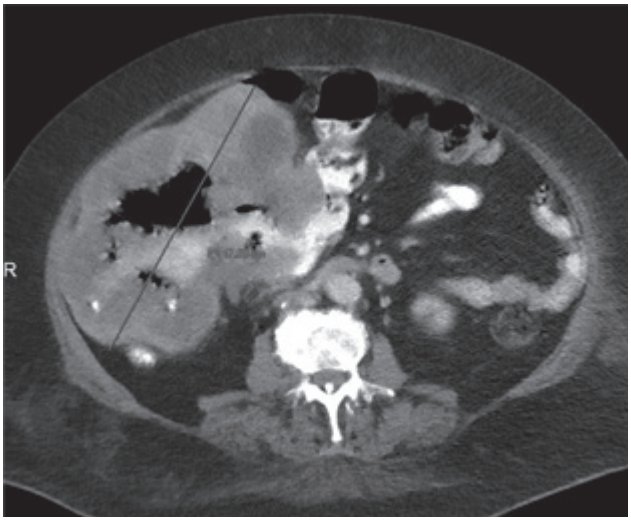

FIGURE 1 Primary squamous cell carcinoma of the liver as seen on a computed tomography scan, transverse plane.

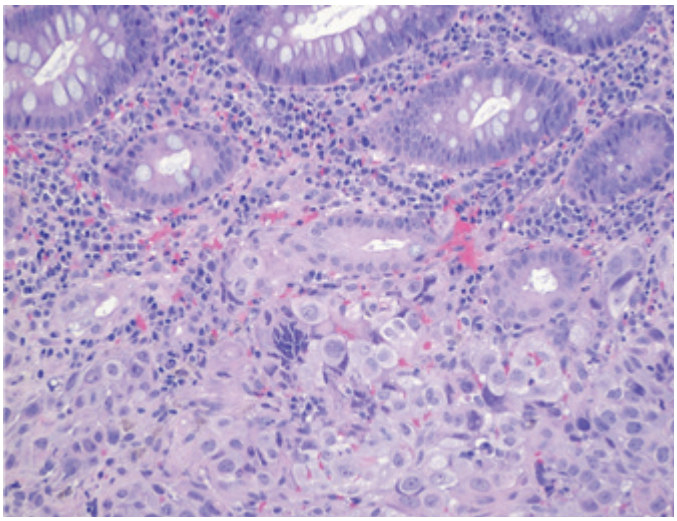

FIGURE 2 Colonic biopsy showing poorly differentiated squamous cell carcinoma invading through serosa and muscularis propria into the mucosa (hematoxylin-eosin, original magnification x20).

radiation as therapeutic options.[2,4,5] In a few cases, complete remission has been achieved with hepatic arterial injection, surgical resection and radiation.[1,5] However, prognosis of liver SCC continues to be dismal with survival no longer than 1 year after diagnosis.[6] Because of the extensive disease and poor functional status in our patient's case, aggressive treatment was not an option.

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