

Background

- **Extrapulmonary small cell carcinomas (ESCCs) are extremely rare**; these tumors have been described most frequently in the urinary bladder, prostate, esophagus, stomach, colon and rectum, gallbladder, larynx, salivary glands, cervix, and skin.
- Gallbladder Small Cell Cancer (SCC) have an aggressive natural history that is characterized by early, widespread metastases. Although some patients who present with locoregional disease may be cured by aggressive therapy, **most relapse and the overall prognosis is poor, with less than 15 percent reaching five-year survival.**
- We present a case of a patient diagnosed with Gallbladder SCC

Case Presentation

- This is a 58-year-old gentleman who presented to the emergency department complaining of pruritus. Associated with fatigue, appetite loss, and a 20-pound weight loss for three months.
- CT abdomen with IV contrast showed wall thickening of the gallbladder and infiltrates to his liver (Figure a). The patient had an Endoscopic retrograde cholangiography (ERCP) where the common hepatic duct contained single severe stenosis. One stent was placed into the common bile duct.
- A solid mass was found in the gallbladder, a biopsy was retrieved, and pathology confirmed Gallbladder SCC (Figures b and c).

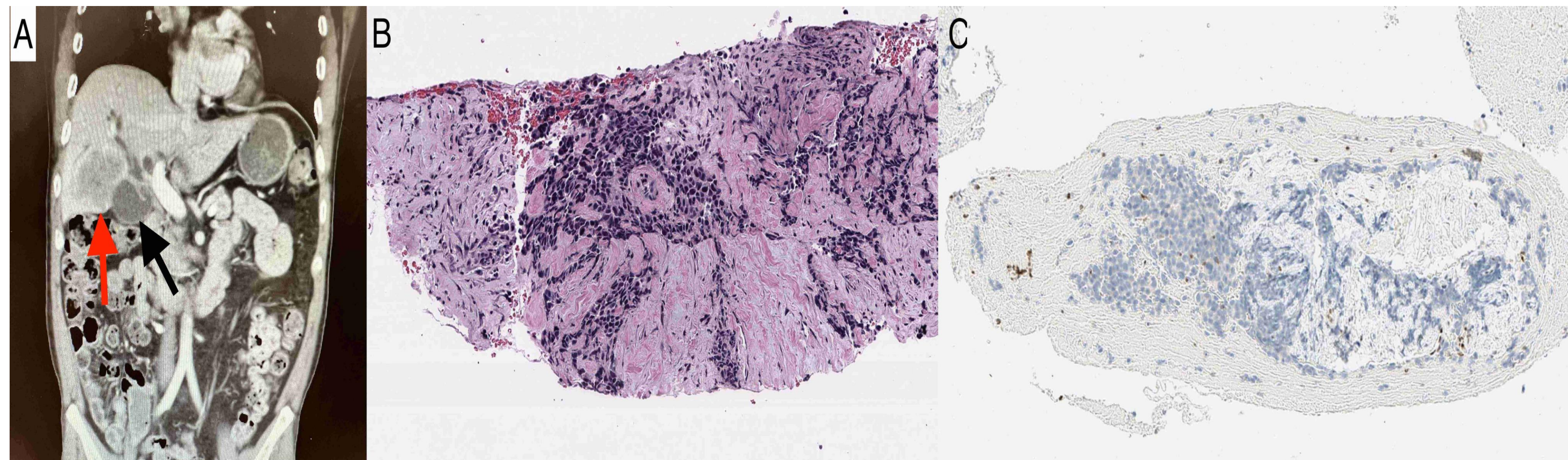


Figure A: CT abdomen with IV contrast showing gallbladder wall thickening (black arrow) and infiltrates into the liver (red arrow).

Figure B: Hematoxylin and eosin image of the gallbladder core needle biopsy showing high-grade neuroendocrine carcinoma involving fibrous stroma. Tumor cells are hyperchromatic with a high nucleus to cytoplasmic ratios and show evidence of molding and crush artifact

Figure C: Core needle biopsy of the gallbladder immunohistochemical stain for RB1 shows loss of tumor cell nuclear expression of the Rb protein, characteristic for small cell carcinoma

Discussion

- Gallbladder SCC is an extraordinary finding as it has an **incidence of .2% of all neuroendocrine tumors with almost all cases either locally advanced or metastatic at the time of diagnosis.**
- In patients with localized disease, surgical resection may result in prolonged survival.
- Chemotherapy is used to treat disseminated disease, **although there are no clinical trials of a specific regimen given the scarcity of cases.**
- Although incredibly rare, SCC of the gallbladder should be part of the differential diagnosis for gallbladder cancer.

- The patient was started on chemotherapy with carbo-etoposide. Another interval CT abdomen was obtained three months later which showed further invasion into segment four of the liver, new peritoneal metastasis, and increased biliary ductal dilation.
- The patient was subsequently started on FOLFIRINOX. Follow-up CT two months later after three rounds of chemotherapy showed stable hepatic lesions but increased intrahepatic ductal dilation.
- Interval CT abdomen two months later showed enlargement of hepatic segment four mass with involvement of segment five, peritoneal carcinomatosis, and new tumor implants along the anterior margin of the pancreas.
- The patient is currently on capecitabine and temozolomide (CAPTEM).

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