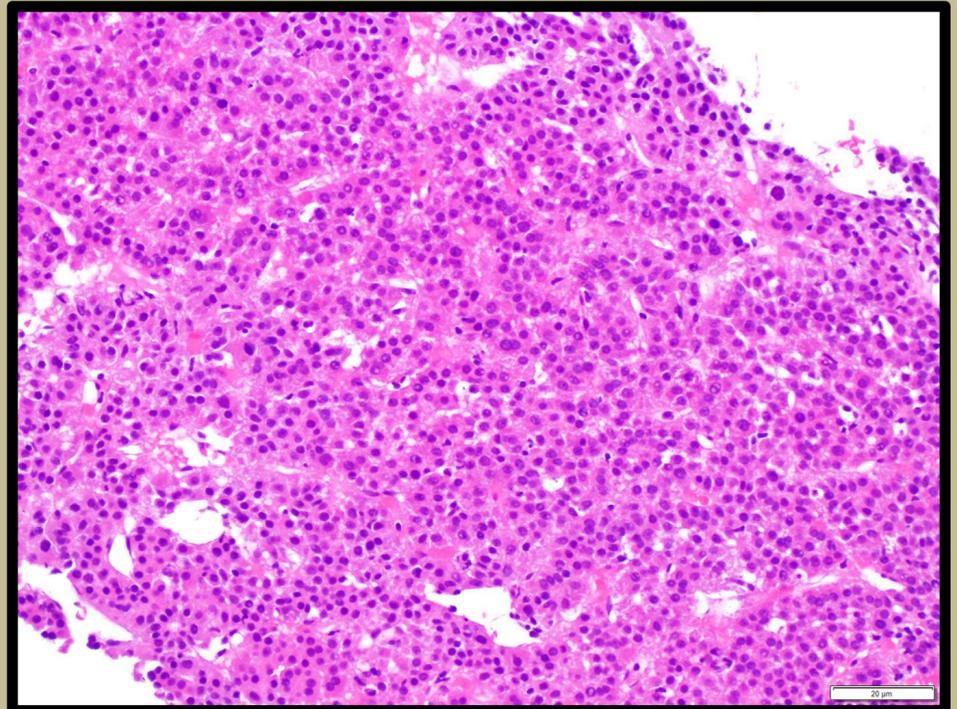
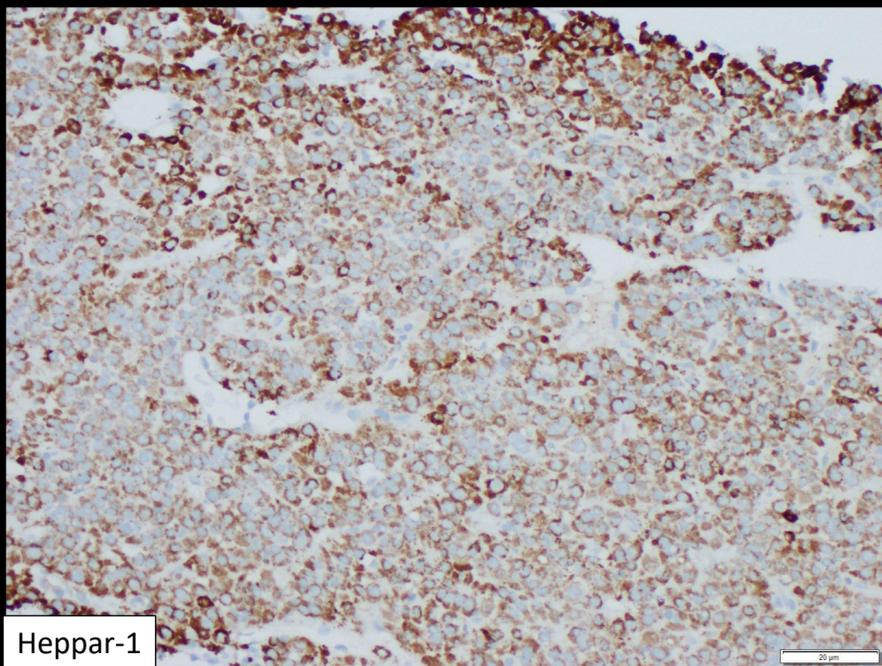


### Introduction

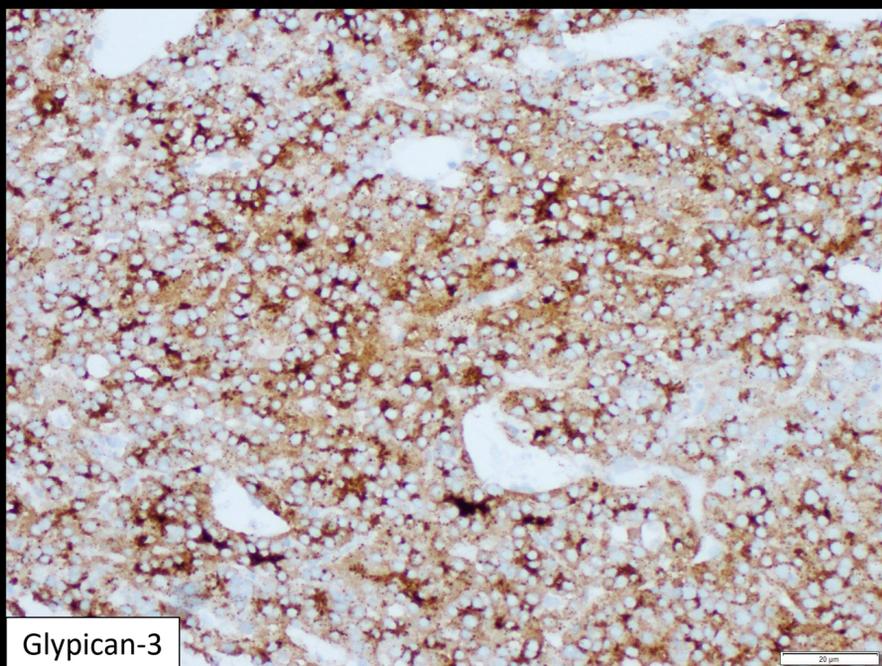
- Hepatocellular carcinoma (HCC) is the most common primary liver cancer, and the sixth most common human cancer overall. The incidence is increasing along with that of chronic liver disease.
- HCC is associated with a poor prognosis often due to a combination of delay in diagnosis and propensity for angioinvasion.
- Major histologic variants of HCC:
  - Clear cell
  - Lymphoepithelial
  - Steatohepatic
  - Schirrous
  - Fibrolamellar
- HCC with small cell histology (HCCSC) is an exceedingly rare variant.



*H&E stain shows tumor composed of uniformly small, round to polygonal cells with scant to moderate amount of slightly eosinophilic, finely granular cytoplasm. In a pseudoglandular/tubular, trabecular, and solid growth pattern.*



Heppar-1

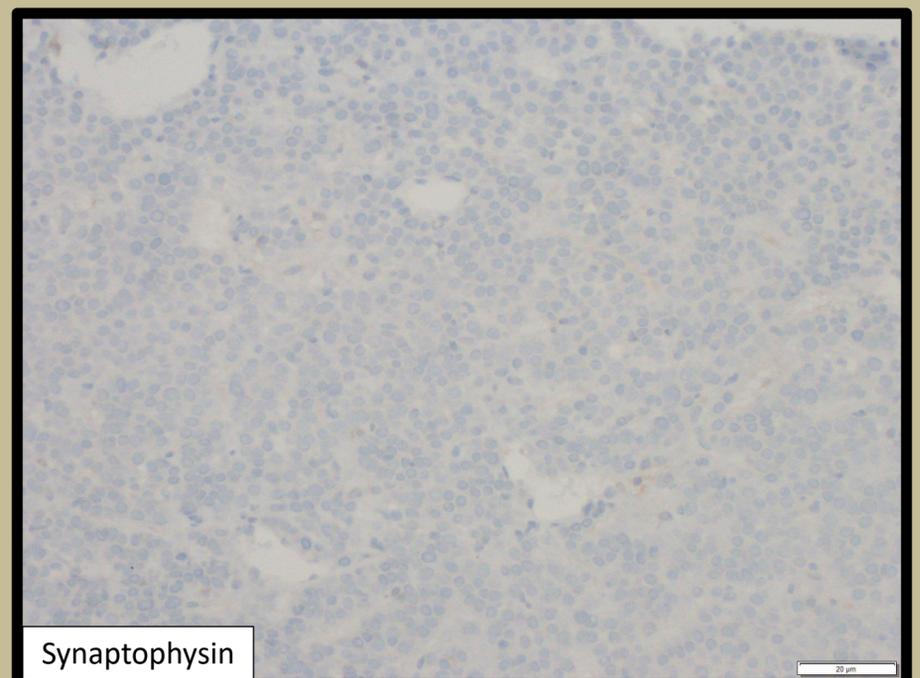


Glypican-3

*Tumor cells are definitively positive for heppar-1 and glypican-3.*

### Discussion

- HCCSC may share many cytologic and architectural features with neuroendocrine tumors, as is observed in the presented cases which were initially misdiagnosed as metastatic neuroendocrine tumors.
- Further complicating the diagnosis, one of two tumors showed equivocal staining for synaptophysin, though staining was negative for other neuroendocrine markers.
- Additional reticulin stain highlighted thickened hepatic plates while P-CEA and CD10 highlighted a canalicular pattern.



Synaptophysin

*Equivocal synaptophysin staining is observed in this case.*

### Conclusion

These cases highlight the importance of astute evaluation of H&E stained slides as well as dedicated ancillary testing in reaching an accurate and timely diagnosis of HCCSC.