

Metastatic neuroendocrine tumour presenting as a gynecological malignancy: A diagnostic challenge

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Introduction

- Neuroendocrine carcinomas are rare ovarian epithelial malignancies, the diagnosis of which needs a high index of suspicion
- These carcinomas carry a poor prognosis with most patients dying within one year of diagnosis. The longest recorded survival is 68 months
- The role of histopathology and molecular immunohistochemistry is key to diagnosing these patients as well as determining possible primary origin of the tumor.

Case History

- A 24 year old lady married with two children presented with history of vaginal bleeding for two months
- On examination she had a distended abdomen with previous Cesarean section scar.
- Her tumor markers CA-125 was 349.2 U/ml, AFP was 2.8 ng/ml and beta HCG was <2 mIU/ml

Imaging

- CT scan of the abdomen showed bilateral adnexal masses along with peritoneal lesions.
- CT chest also revealed right pleural effusion.

Multidisciplinary team

Imaging was reviewed and a pathological supraclavicular lymph node was identified. Recommendation was made to do a pleural tap and a biopsy of the supraclavicular lymph node

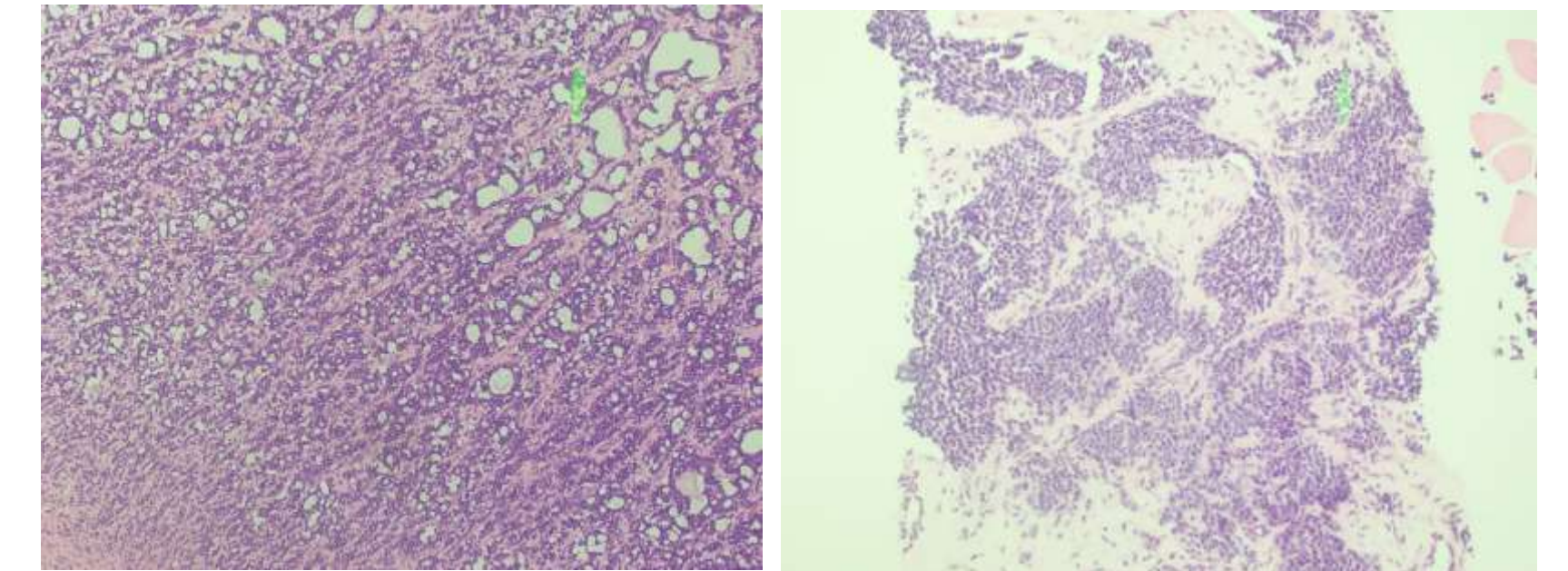


Diagnostic challenges

- An ascitic tap was performed which showed atypical cells on cytology.
- A pleural tap did not reveal malignant cells.
- A supraclavicular node biopsy was then undertaken that showed metastatic poorly differentiated carcinoma of neuroendocrine differentiation

Histopathology

- The supraclavicular lymph node biopsy was positive for a malignant neoplasm composed of nests of tumor cells showing high nuclear to cytoplasmic ratio, pleomorphic nuclei and dispersed chromatin.
- Immunohistochemistry showed positivity for the following antibodies: CK, CAM5.2, Synaptophysin, INSM1, PAX8 and SALL4
- The Ki67 showed 30% proliferation index.



Treatment

The stage of the disease was determined to be stage IVB. She underwent neoadjuvant chemotherapy followed by cytoreductive surgery and adjuvant chemotherapy.

Conclusion

Neuroendocrine tumors may be evasive to usual diagnostic techniques and require extensive investigations to clinch the diagnosis.

References

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