

Large cell neuroendocrine carcinoma of cervix : A case report.

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Introduction

Large cell neuroendocrine carcinoma (LCNEC) of the cervix is remarkably rare, highly aggressive and usually has unfavourable prognosis. Cervical LCNEC cases were first reported by Gilks et al in 1997.¹

Case Report

A 44-year-old woman presented with prolonged menses for 4 months. A vaginal speculum examination revealed a 7 cm fungating mass with an irregular surface that occupied the entire cervix. A large multilobulated, heterogeneously enhancing cervical mass with central hypodensities reaching to the upper vaginal vault was discovered on computed tomography of the thorax, abdomen, and pelvis.

Biopsy from the cervical lesion shows tumour tissues composed of sheets, clusters, and trabeculae of malignant cells. Pseudo-rosette patterns were occasionally seen (Figure 1A). The cells show enlarged hyperchromatic nuclei with clumped chromatin, an irregular nuclear outline, and a moderate amount of cytoplasm (Figure 1B). There was brisk mitotic activity.

Immunohistochemistry showed that CD56 was diffusely positive (Figure 2A), chromogranin was focally positive (Figure 2B), and synaptophysin was weakly positive (Figure 2C). The proliferative index is 60–70% (Figure 2D).

She was diagnosed as LCNEC, FIGO stage IIA2. The patient underwent concurrent chemoradiotherapy, but she experienced a recurrence after less than 1 year.

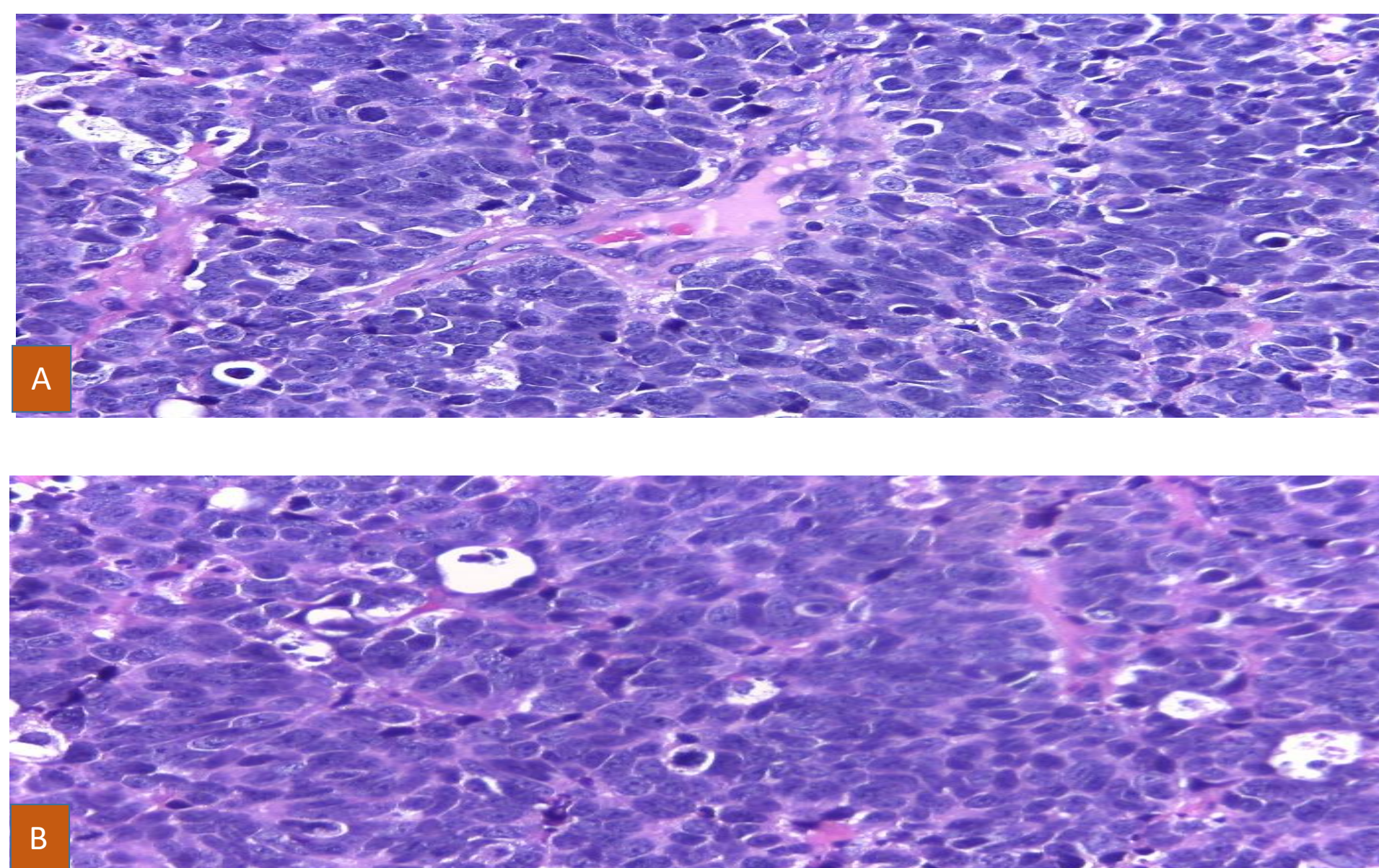


Figure 1A-B. Microscopic findings of LCNEC
(A) Pseudorosette-pattern (H&E x40).
(B) Sheets of malignant cells (H&E x40)

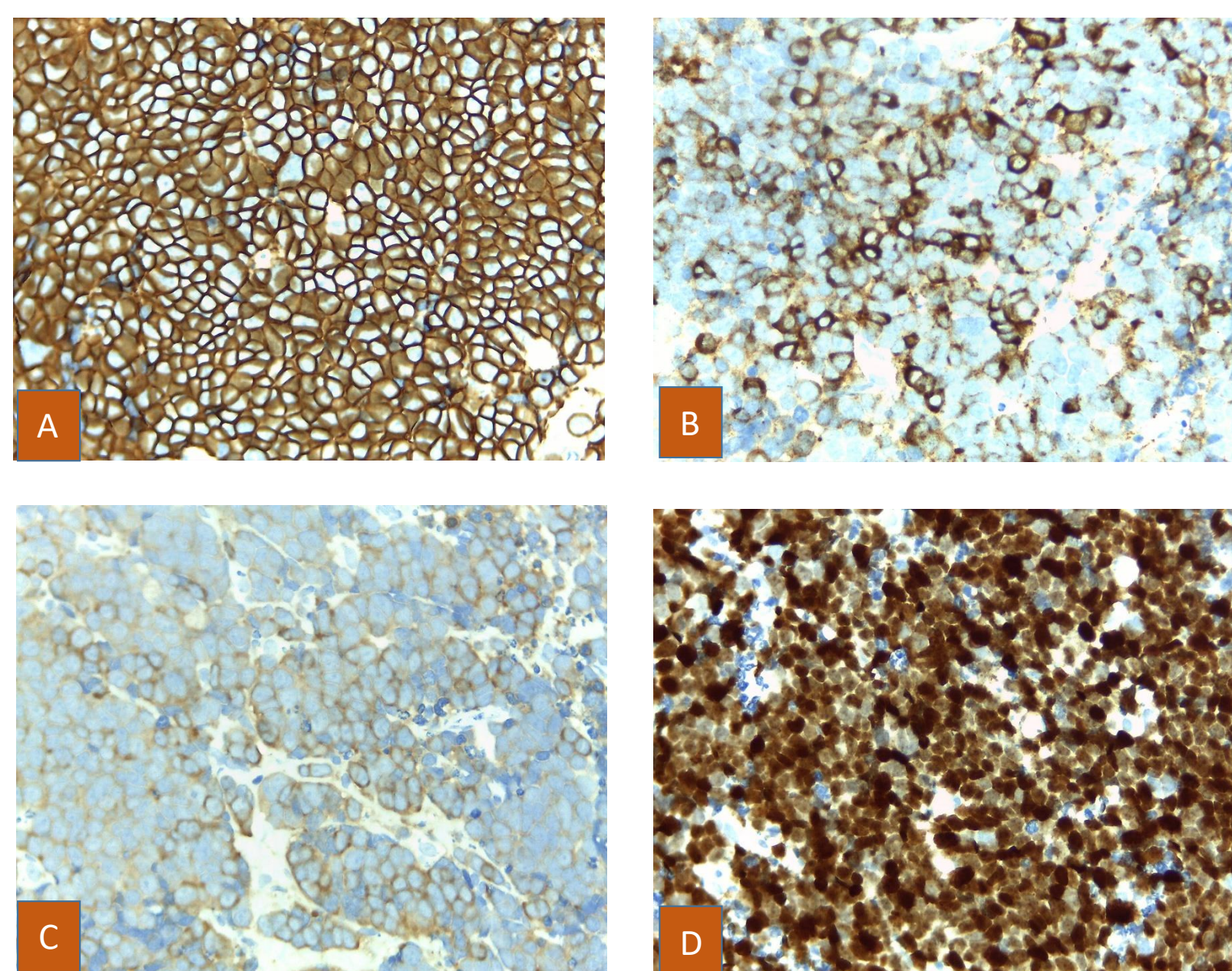


Figure 2 Immunohistochemistry findings.
(A) Tumors cells are diffusely positive with CD56 (x40).
(B) Tumor cells are positive for chromogranin (x40).
(C) Tumor cells are weak positive for synaptophysin(x40).
(D) Ki-67 index is 60-70%. (x40)

Discussion

Cervical neuroendocrine carcinomas constitute less than 2% of all invasive cervical malignancies, of which around 28% are reported to be LCNEC.^{2,3} LCNEC of the cervix usually affects premenopausal women, with an average age of diagnosis of 34 years. It is strongly associated with HPV infection.

Histologically, these tumours are poorly differentiated and various differential diagnoses should be taken into consideration. Among the differential diagnoses are poorly differentiated squamous cell carcinoma, poorly differentiated adenocarcinoma, epithelioid sarcoma, malignant melanoma, and lymphoma.

The morphological distinction between cervical large neuroendocrine carcinoma and other differential diagnoses represents a major diagnostic challenge. Therefore, recognition of its cytology and histopathology with the aid of immunohistochemical staining is important for the diagnosis.

Conclusion

LCNEC of the cervix is highly aggressive and has a poor prognosis. It is important to recognise the morphologic features of these neoplasms. Early diagnosis with multimodality treatment could potentially increase the survival rate.

References

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