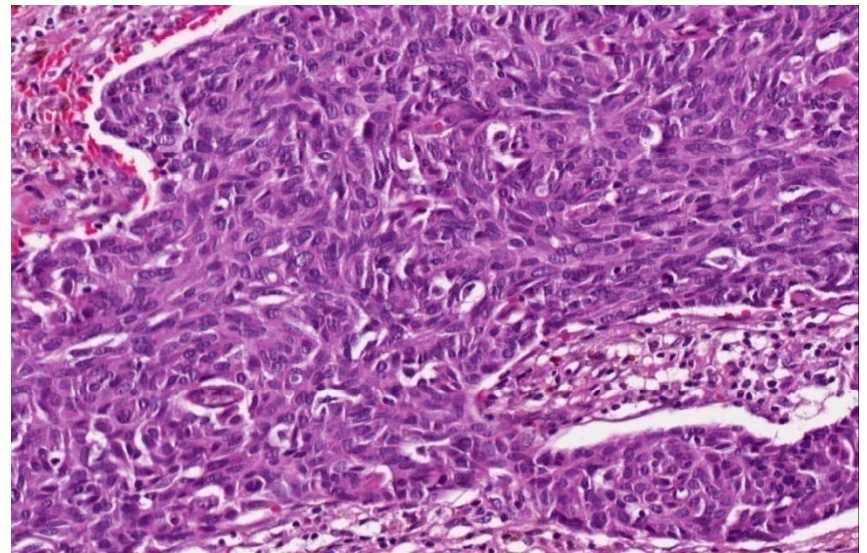
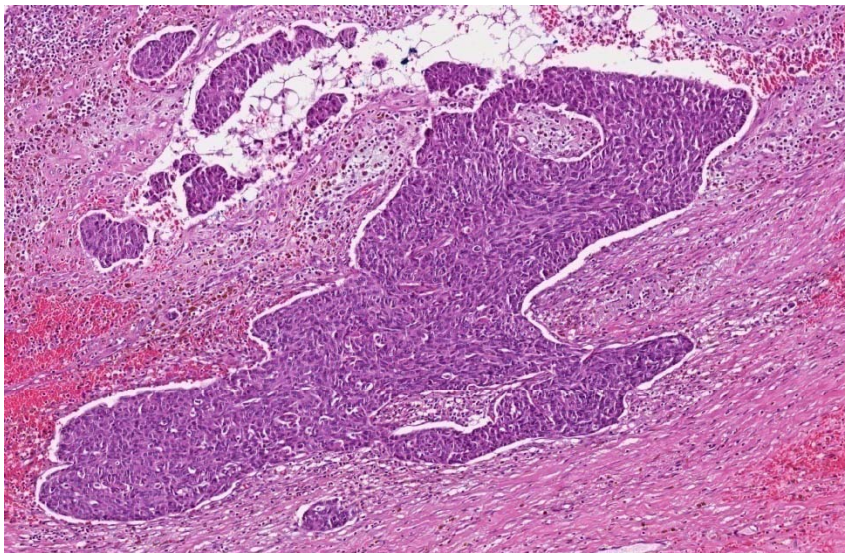
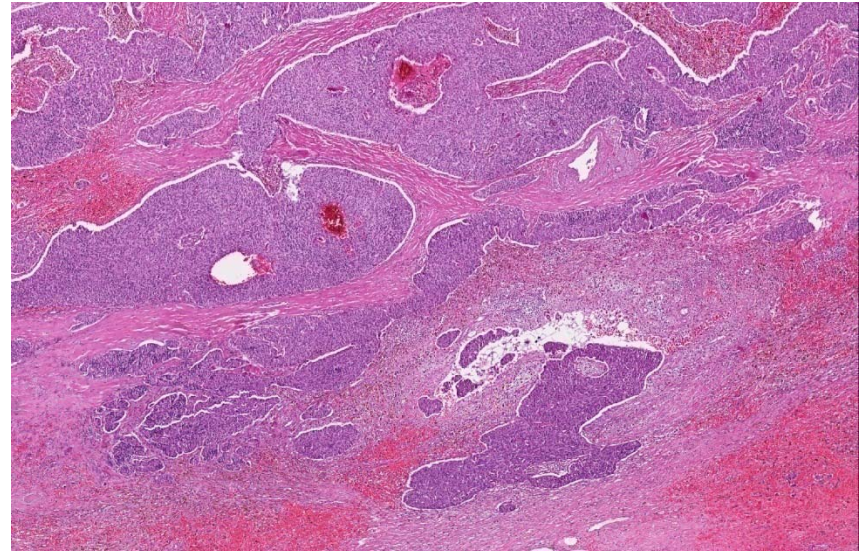
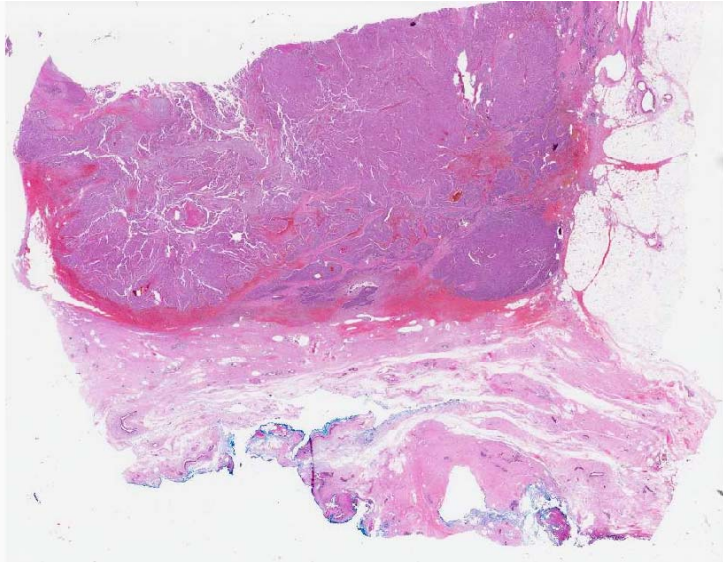


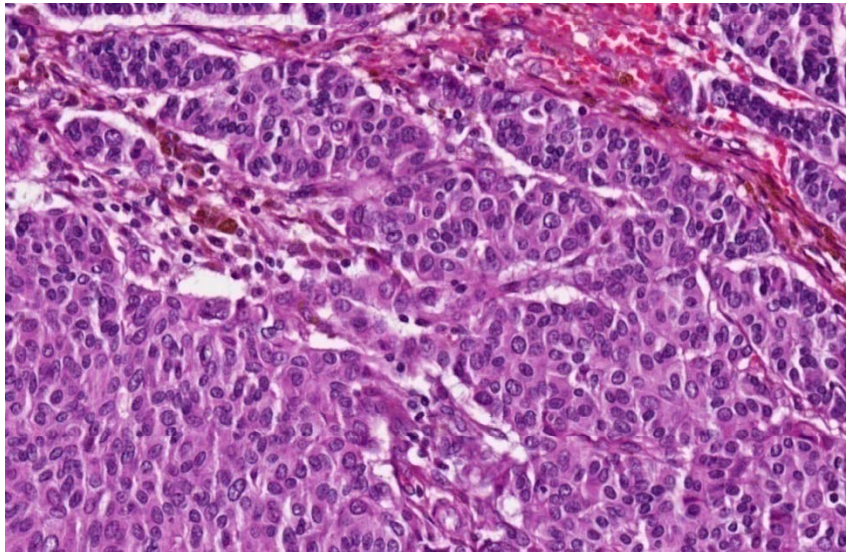
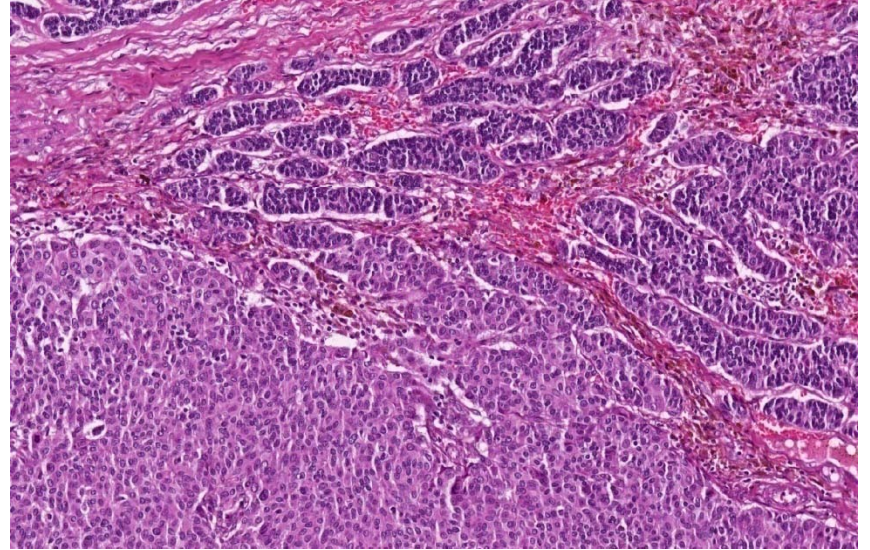
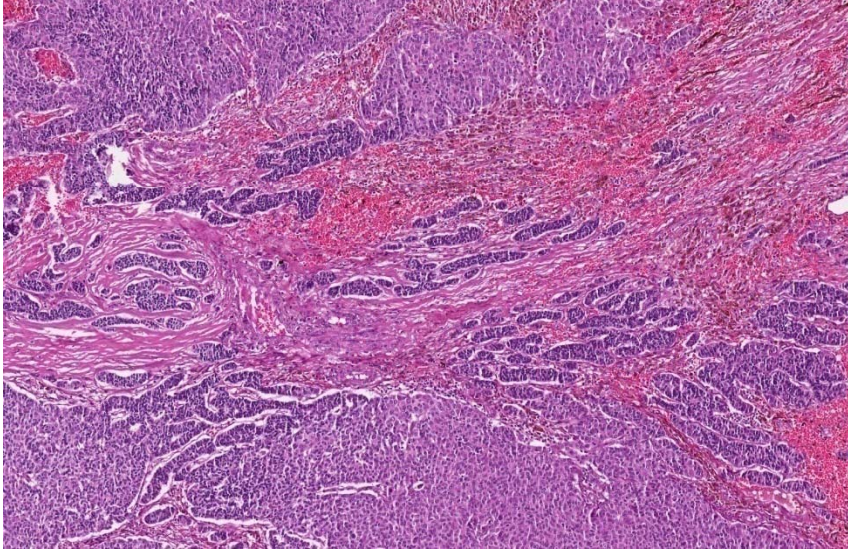
Set D.2

- 88 year old Chinese female underwent a right breast wide excision.
- Macroscopically, there was a fleshy irregular haemorrhagic tumour in the central part of the specimen, measuring up to 5.8 cm in maximal dimension.
- The overlying skin was dusky with multiple punctate areas of ulceration.

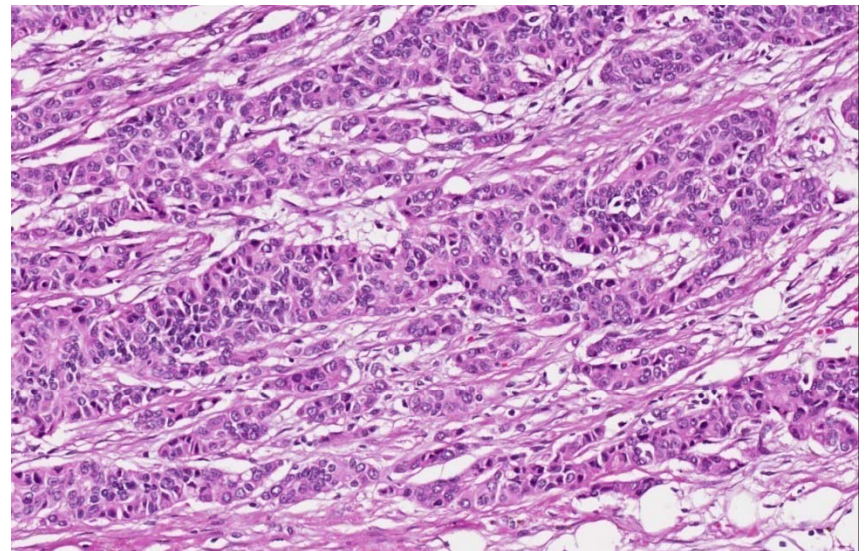
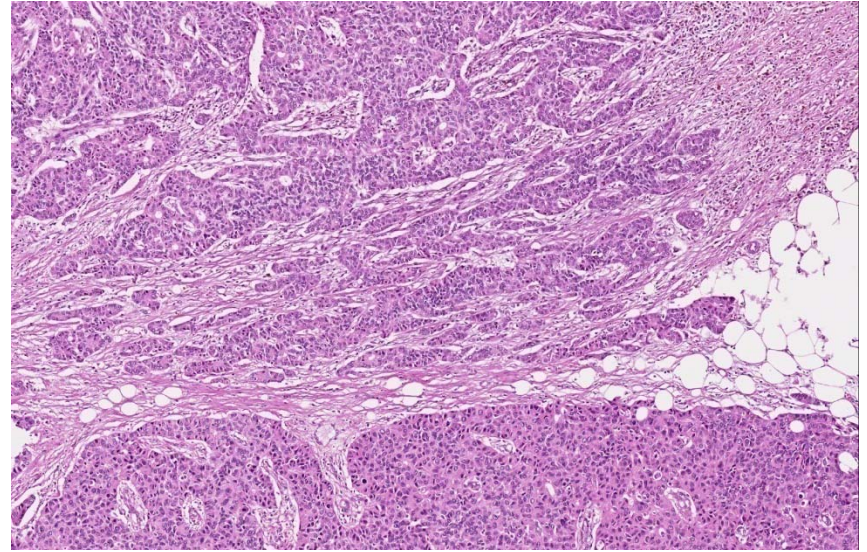
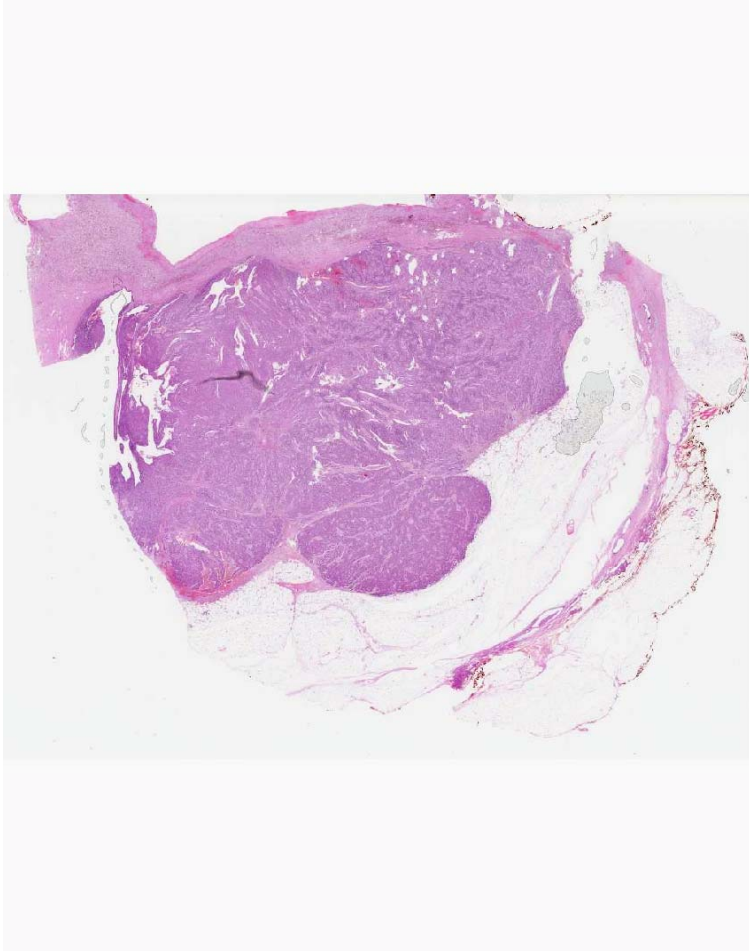
Set D.2



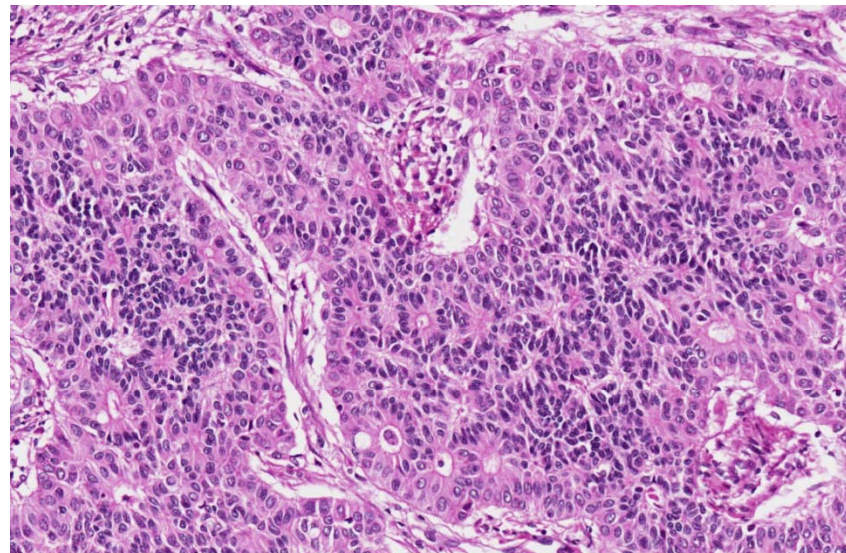
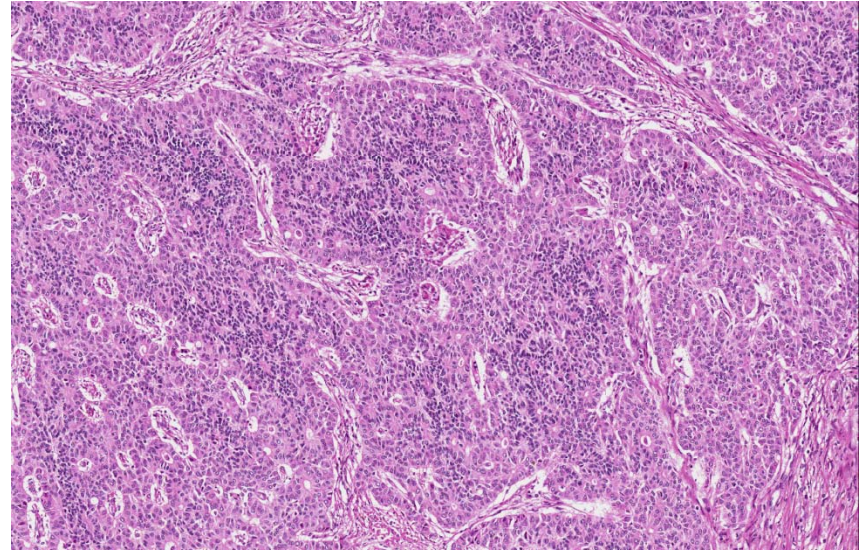
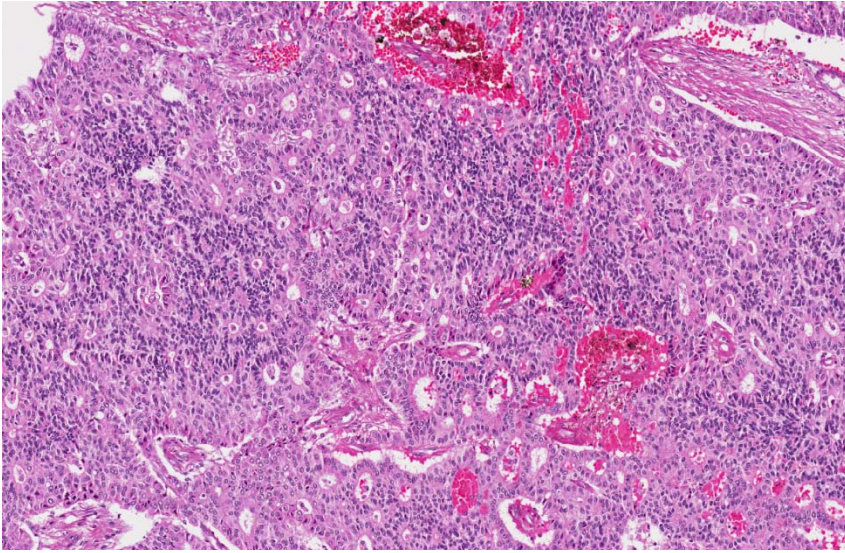
Set D.2



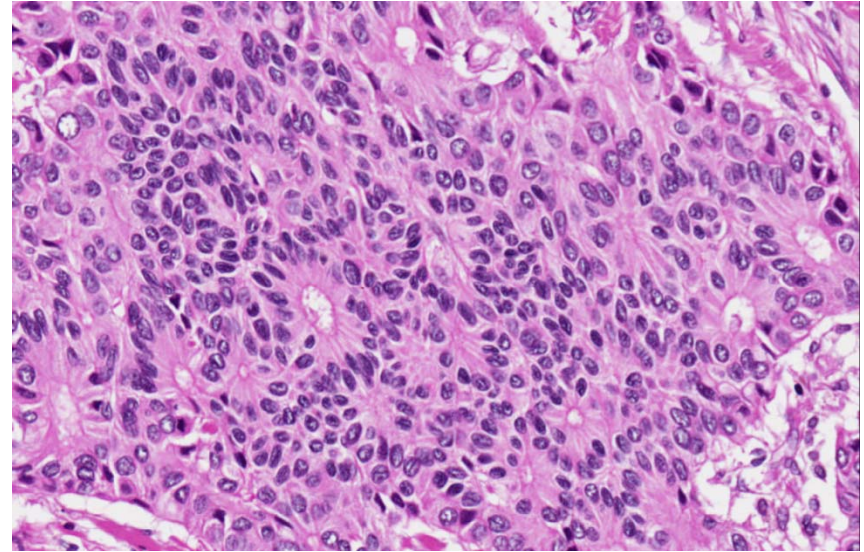
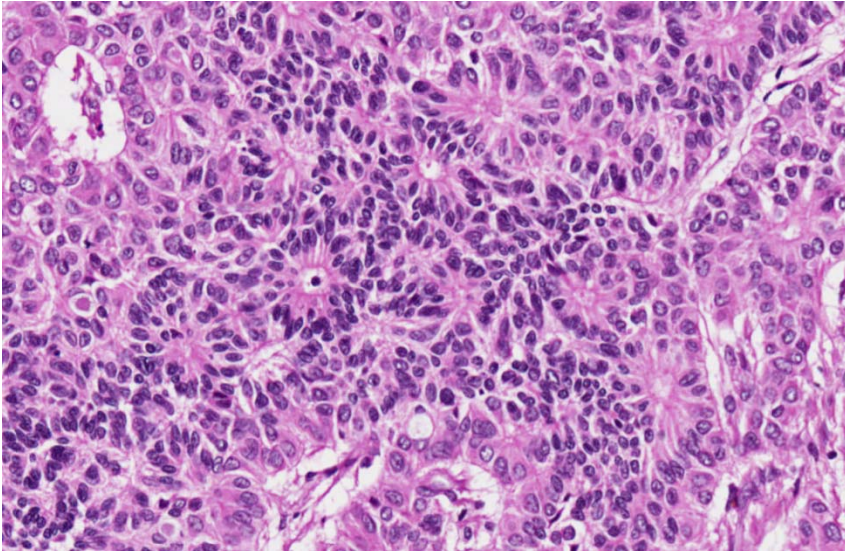
Set D.2



Set D.2

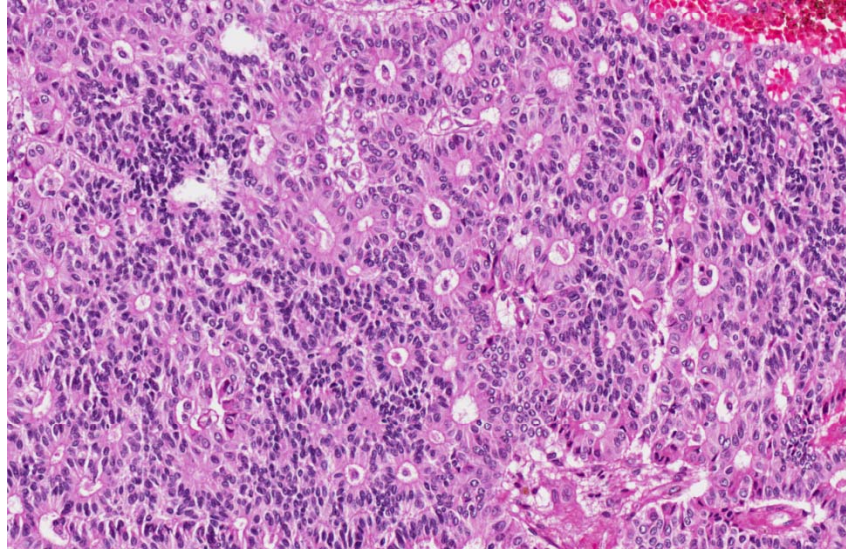


Set D.2

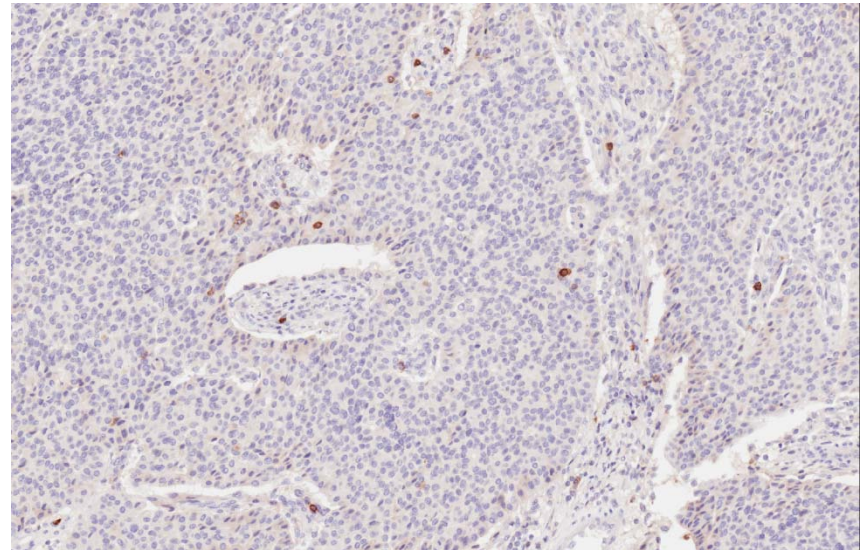
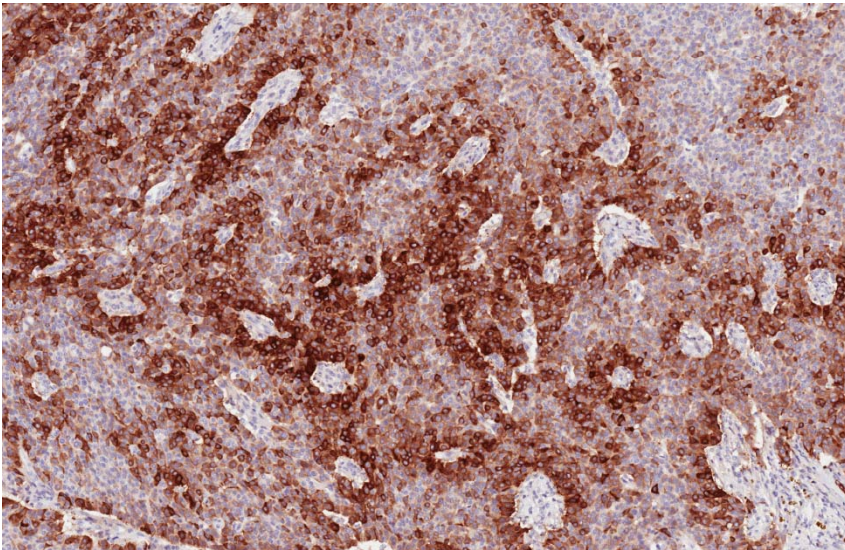


Set D.2

synaptophysin



chromogranin



- Invasive carcinoma with neuroendocrine features.

Key histological findings

- Invasive carcinoma with unusual features:
 - True lumens with polarisation of cells.
 - Pseudorosettes.
 - Spindling of epithelial cells.
 - Amphophilic to eosinophilic cytoplasm.
- Neuroendocrine markers positive.

Neuroendocrine carcinoma of the breast

- Expression of neuroendocrine markers in > 50% of the tumour cells.
- In situ ductal carcinoma:
 - Solid-papillary with spindle cells.
- Invasive carcinoma (WHO classification):
 - Solid subtype of invasive neuroendocrine carcinoma, related to solid-papillary DCIS.
 - Small cell (oat cell) carcinoma.
 - Large cell neuroendocrine carcinoma.
- Invasive mucinous carcinoma (Type B) may show neuroendocrine differentiation.
- Need to rule out metastatic carcinoid tumour in a nodule of neuroendocrine carcinoma of the breast.

Neuroendocrine carcinoma of the breast

- Graded using usual criteria.
- Presence of mucinous differentiation is a good prognostic feature.
- Prognosis of small cell carcinoma depends on the stage of disease at presentation.

Learning points

- Recognition of neuroendocrine differentiation.
- Definition of neuroendocrine carcinoma.