

PRACTICAL 6

NEOPLASIA



(MALIGNANT TUMORS)

1 - SQUAMOUS CELL CARCINOMA OF THE SKIN

Squamous Cell Carcinoma - Gross



Haemorrhagic and ulcerated lesion on the upper lip/back of hand and forehead

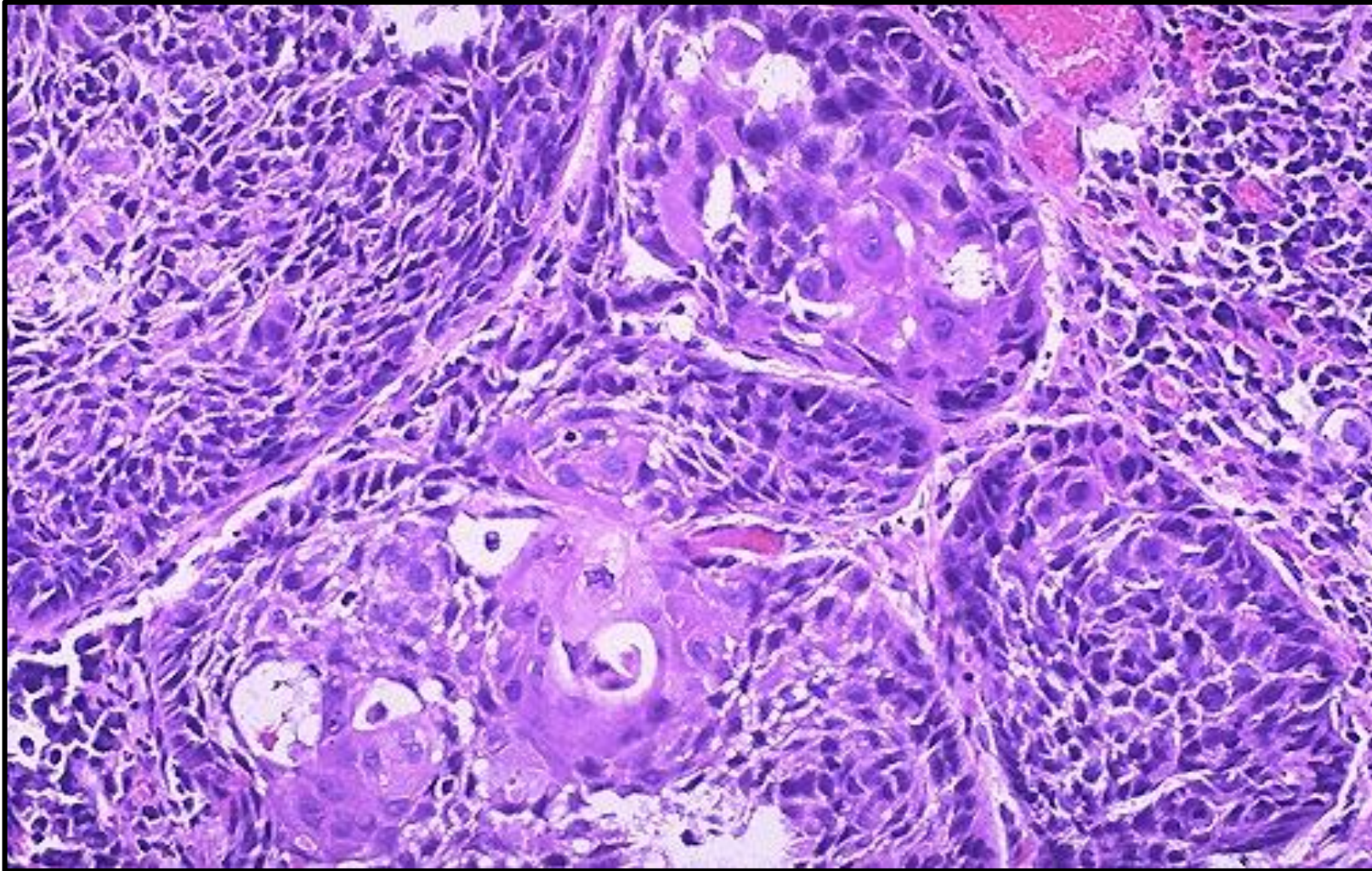
- ***A sore that does not heal or any change in an existing mole, wart, or skin lesion can point to SCC.***
- ***There may be an ulcer or reddish skin plaque that grows very slowly, may bleed occasionally (especially if located on the lip), may have an ulcerated center with raised, hard edges, may have a pearly quality with tiny blood vessels, is commonly present on sun-exposed areas.***
- ***Squamous cell carcinoma most likely and initially metastasise to the lymph nodes.***

Squamous Cell Carcinoma - Histopathology



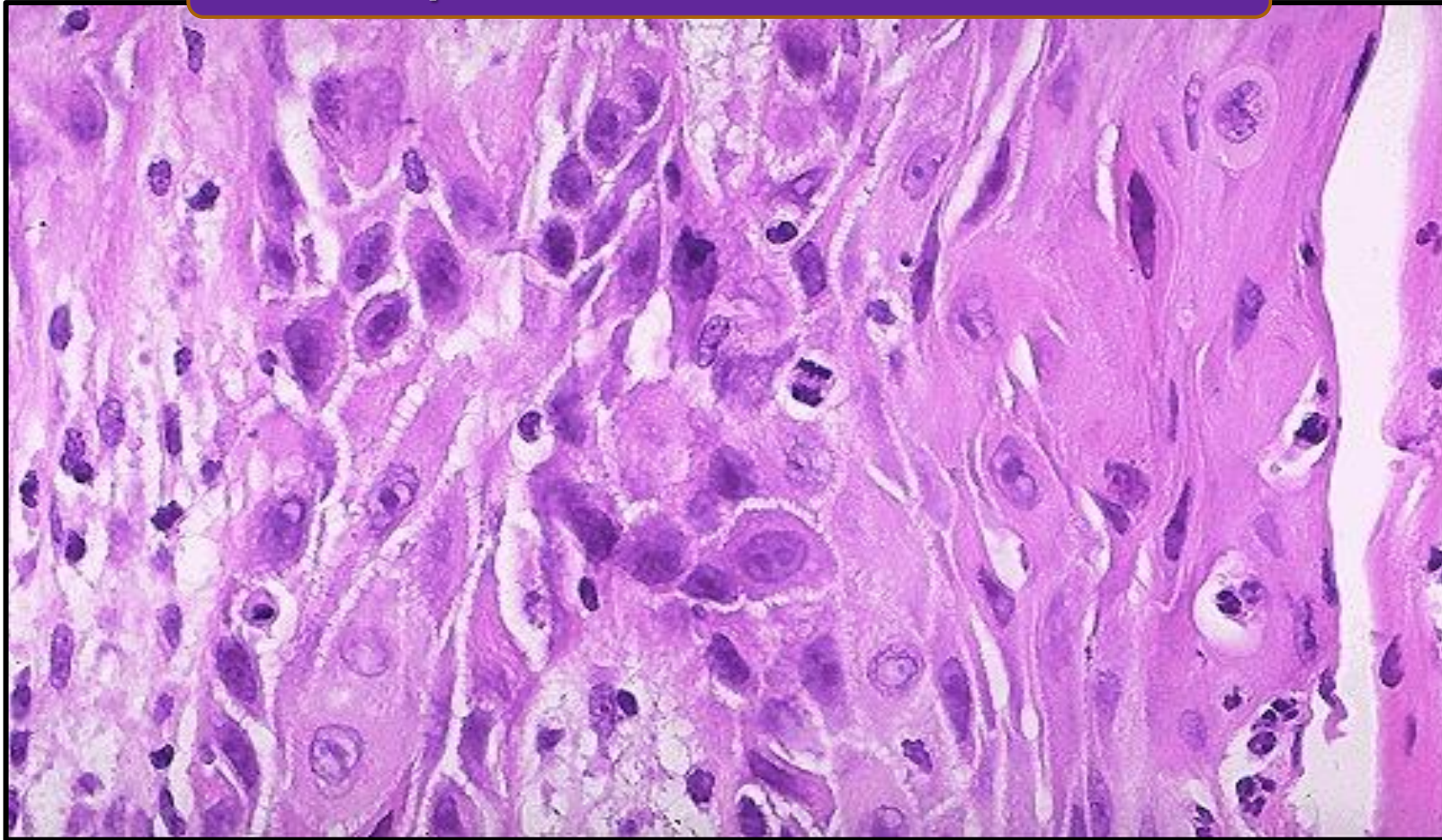
The normal squamous epithelium at the right merges into the squamous cell carcinoma at the left, which is infiltrating downward. The neoplastic squamous cells are still similar to the normal squamous cells, but are less orderly

Squamous Cell Carcinoma - Histopathology



Here is a moderately differentiated squamous cell carcinoma in which some, but not all, of the neoplastic cells in nests have pink cytoplasmic keratin

Squamous Cell Carcinoma - HPF



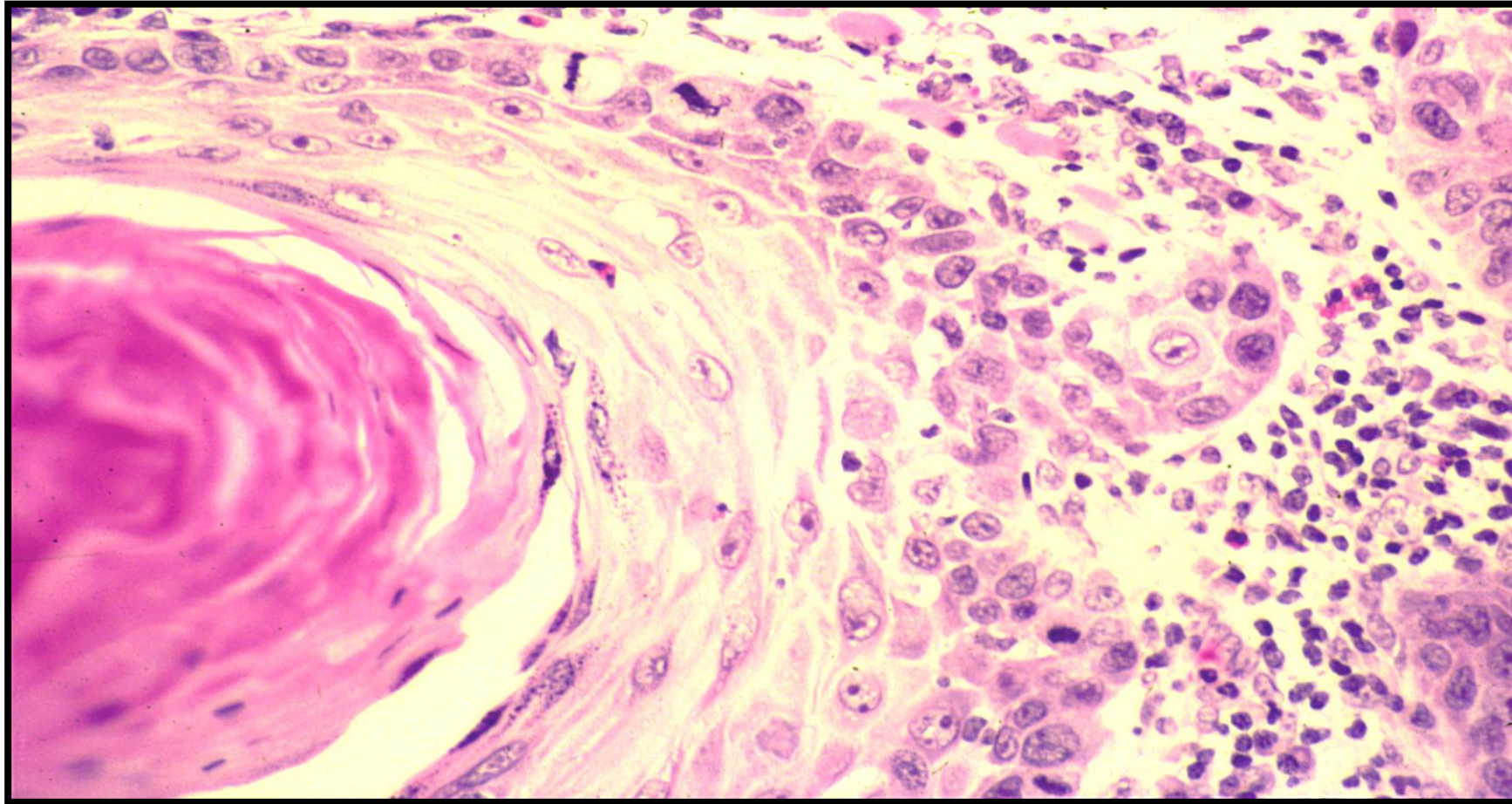
At high magnification, this squamous cell carcinoma demonstrates enough differentiation to tell that the cells are of squamous origin.

The cells are pink and polygonal in shape with intercellular bridges.

The neoplastic cells show pleomorphism, with hyperchromatic nuclei.

A mitotic figure is present near the center

Squamous Cell Carcinoma - HPF



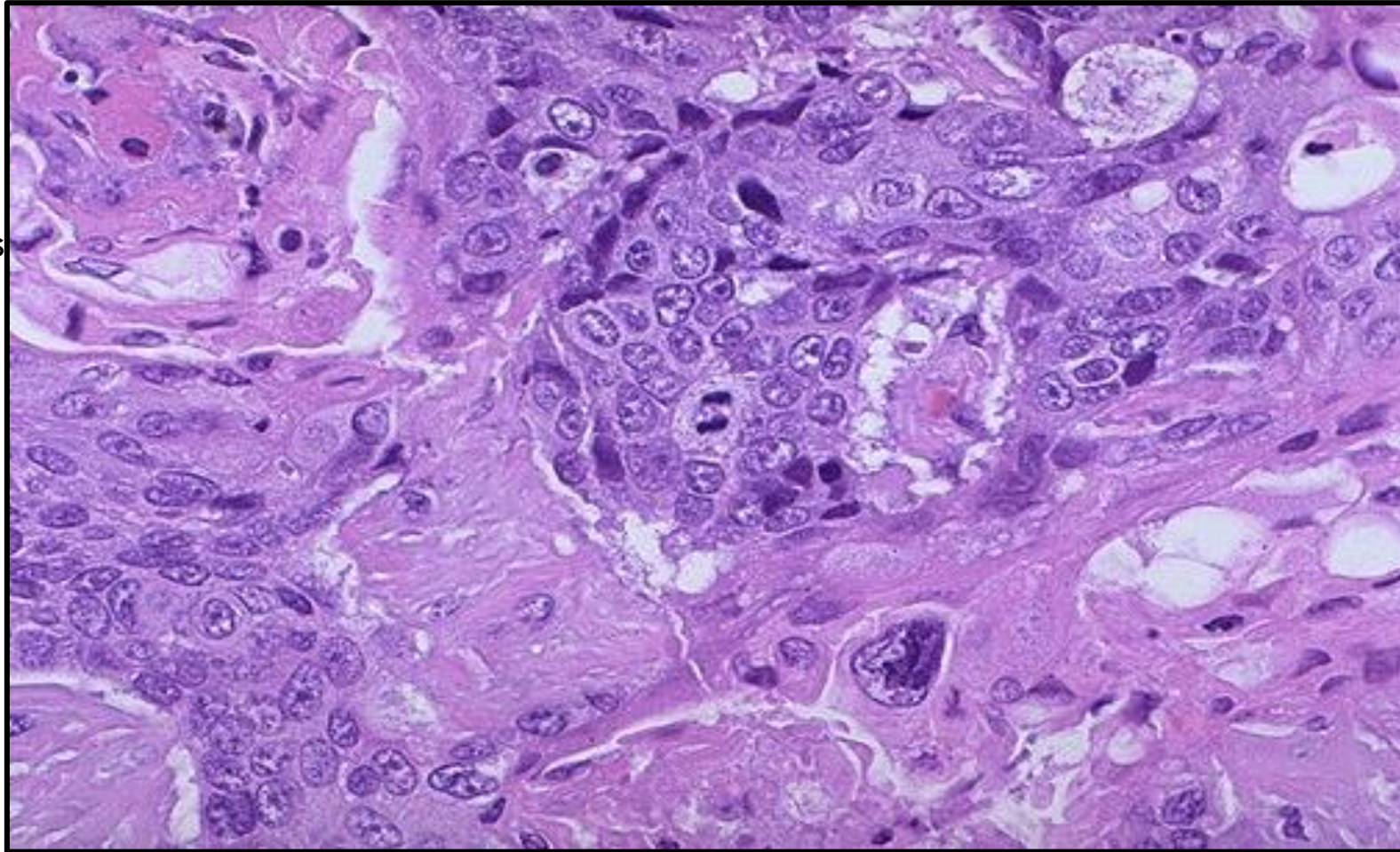
The dermis is infiltrated by masses of well differentiated neoplastic squamous cells separated by fibrous tissue stroma with chronic inflammatory cells.

Tumour cells show pleomorphism, hyperchromatism and many mitotic figures .

Pinkish laminated keratin pearls (epithelial cell nests) are present in the center.

Squamous Cell Carcinoma - HPF

- Malignant squamous cells
- Keratin production
- Mitotic figures
- Nuclear pleomorphism



- ***A mitotic figure is seen here in the center, surrounded by cells of a poorly differentiated squamous cell carcinoma, with pleomorphic cells that have minimal pink keratinization in their cytoplasm.***
- ***In general, mitoses are more likely to be seen in malignant neoplasms***

2- ADENOCARCINOMA OF THE LARGE INTESTINE

Adenocarcinoma of the Colon



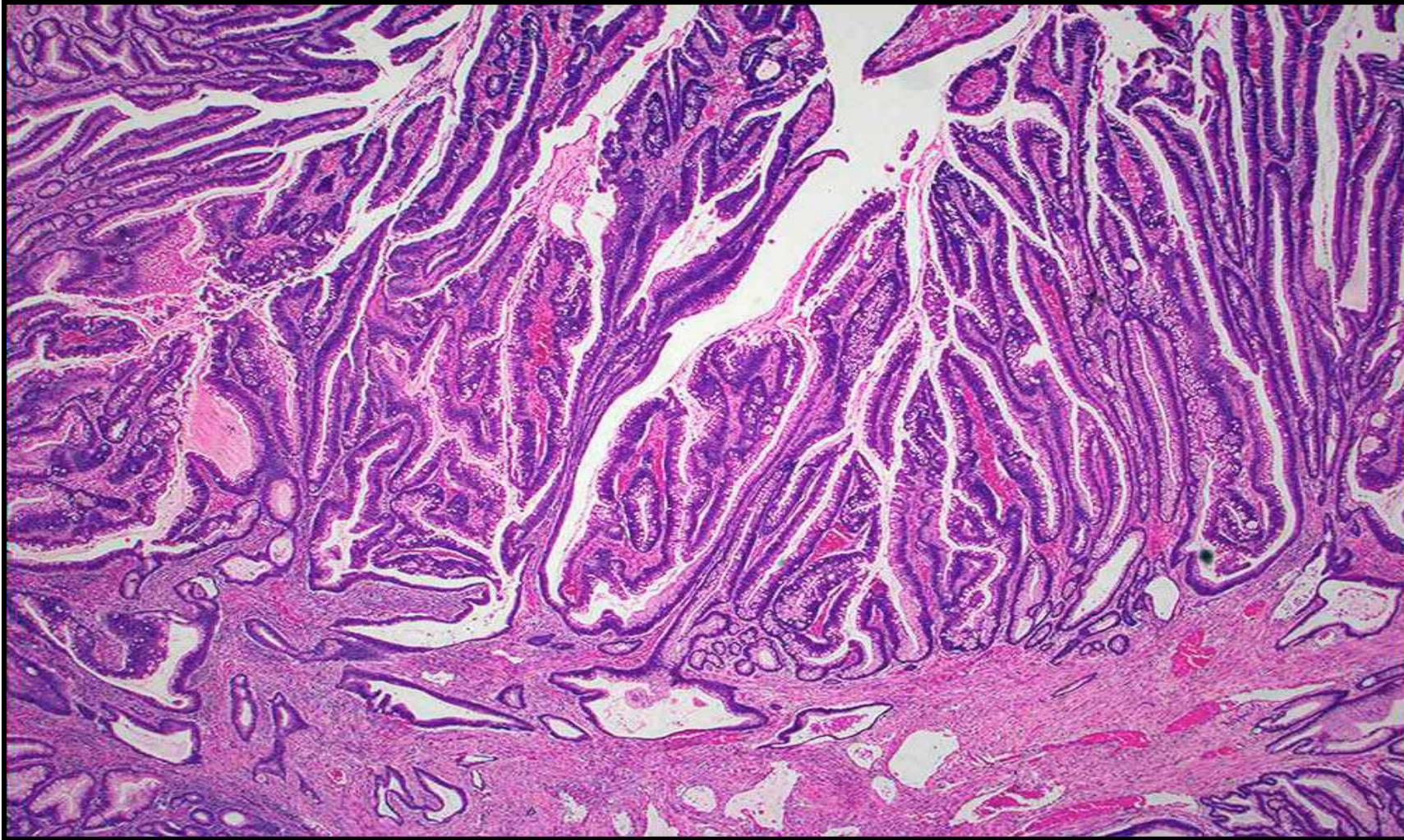
This cancer is more exophytic in its growth pattern. Thus, one of the complications of a carcinoma is obstruction (usually partial).

Adenocarcinoma of the Colon



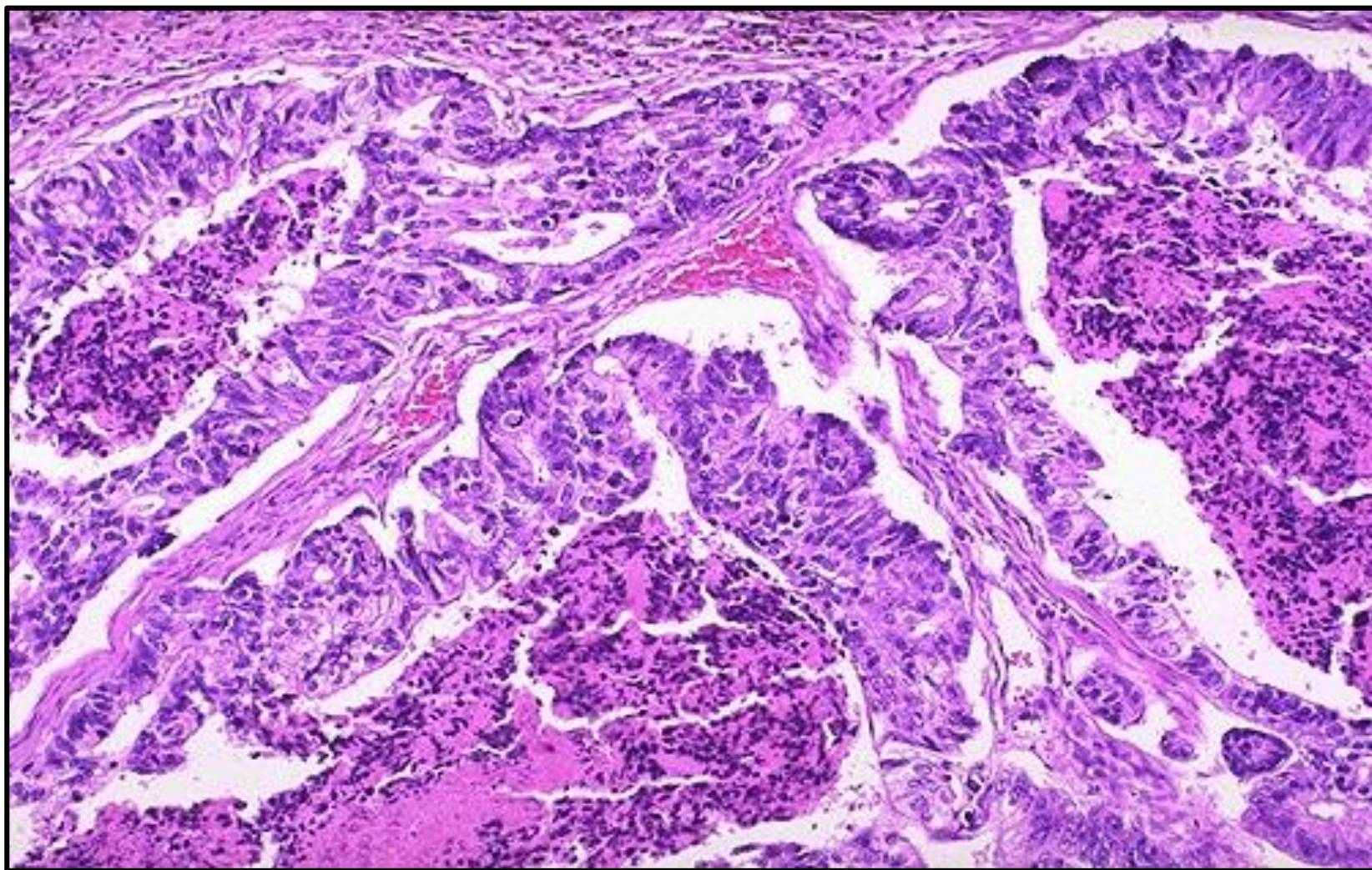
This is an adenocarcinoma arising in a villous adenoma. The surface of the neoplasm is polypoid and reddish pink. Hemorrhage from the surface of the tumor creates a guaiac positive stool. This neoplasm was located in the sigmoid colon

Adenocarcinoma of the Colon



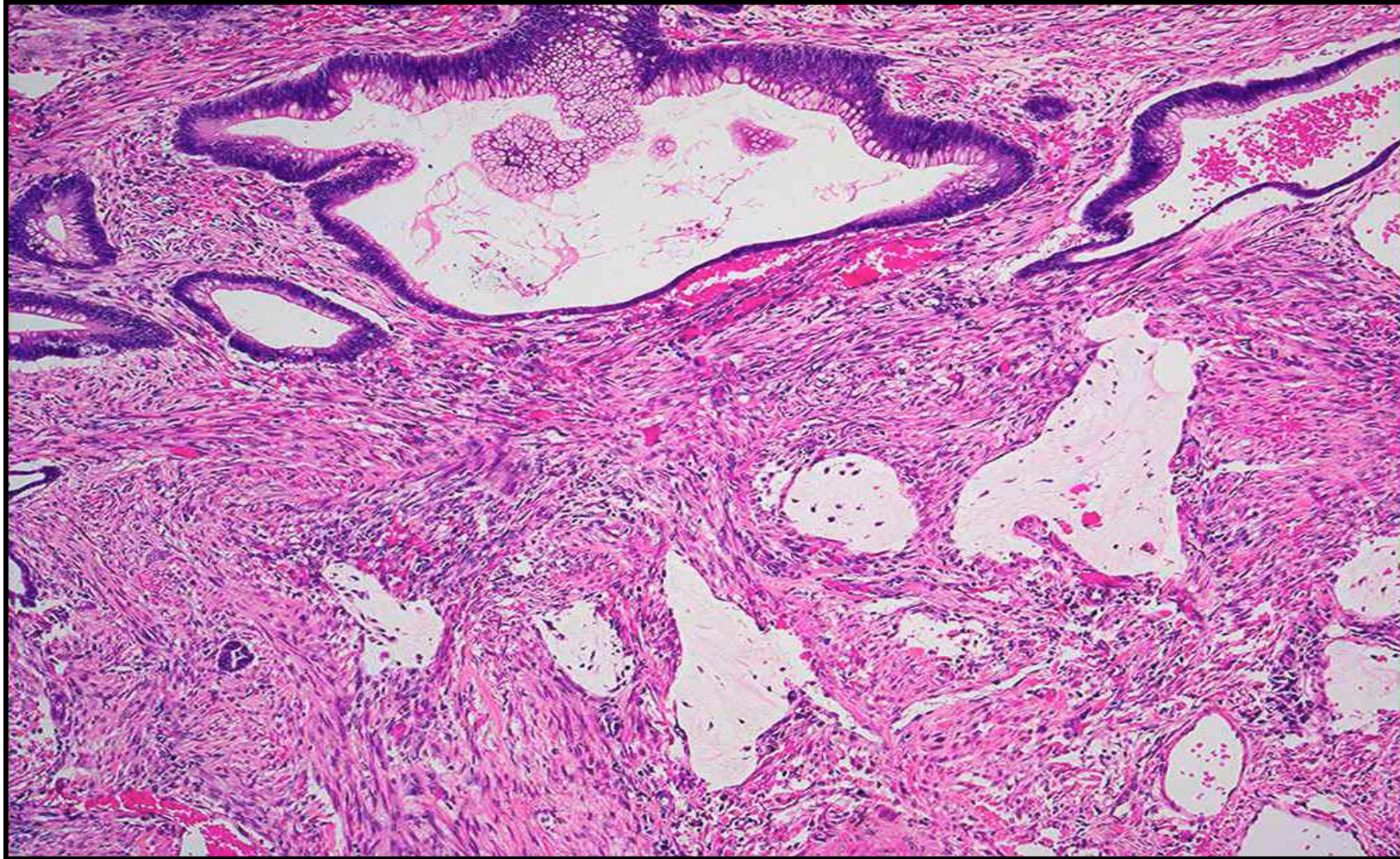
***A moderately differentiated colonic adenocarcinoma .
Tumour consists of crowded irregular malignant acini separated by
thin fibrovascular stroma.***

Adenocarcinoma of the Colon - LPF



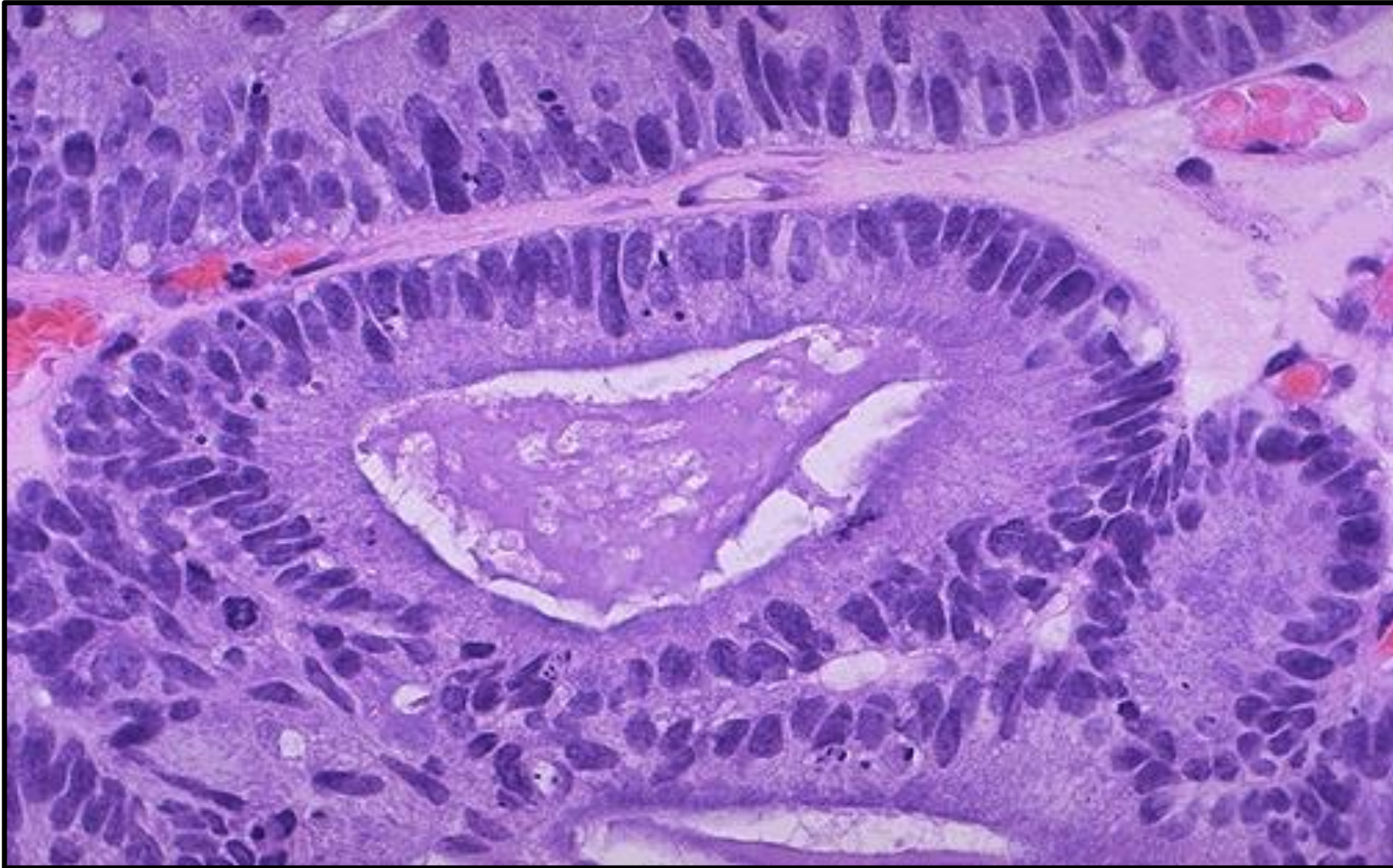
Here is an adenocarcinoma in which the glands are much larger and filled with necrotic debris.

Adenocarcinoma of the Colon - LPF



The acini are lined by one or several layers of neoplastic cells with papillary projection showing pleomorphism, hyperchromatism and few mitoses.

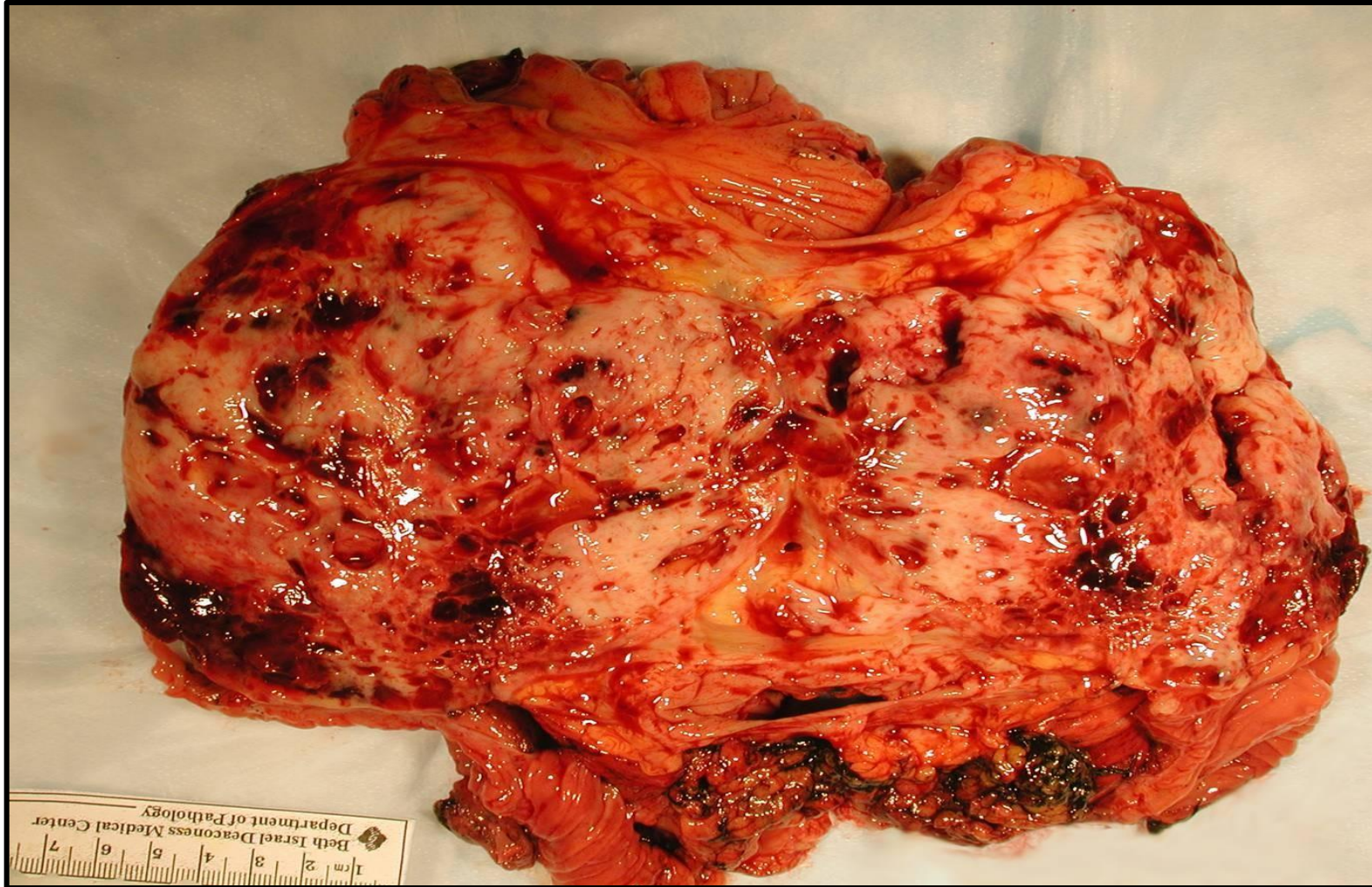
Adenocarcinoma of the Colon - HPF



At high magnification, the neoplastic glands of adenocarcinoma have crowded nuclei with hyperchromatism and pleomorphism. No normal goblet cells are seen

3- LEIOMYOSARCOMA

Leiomyosarcoma



Cut surface of this leiomyosarcoma showing poorly defined, pale and soft, large fleshy mass with hemorrhage and necrosis.

Sarcomas metastasize through blood vessels (Hematogenous route)

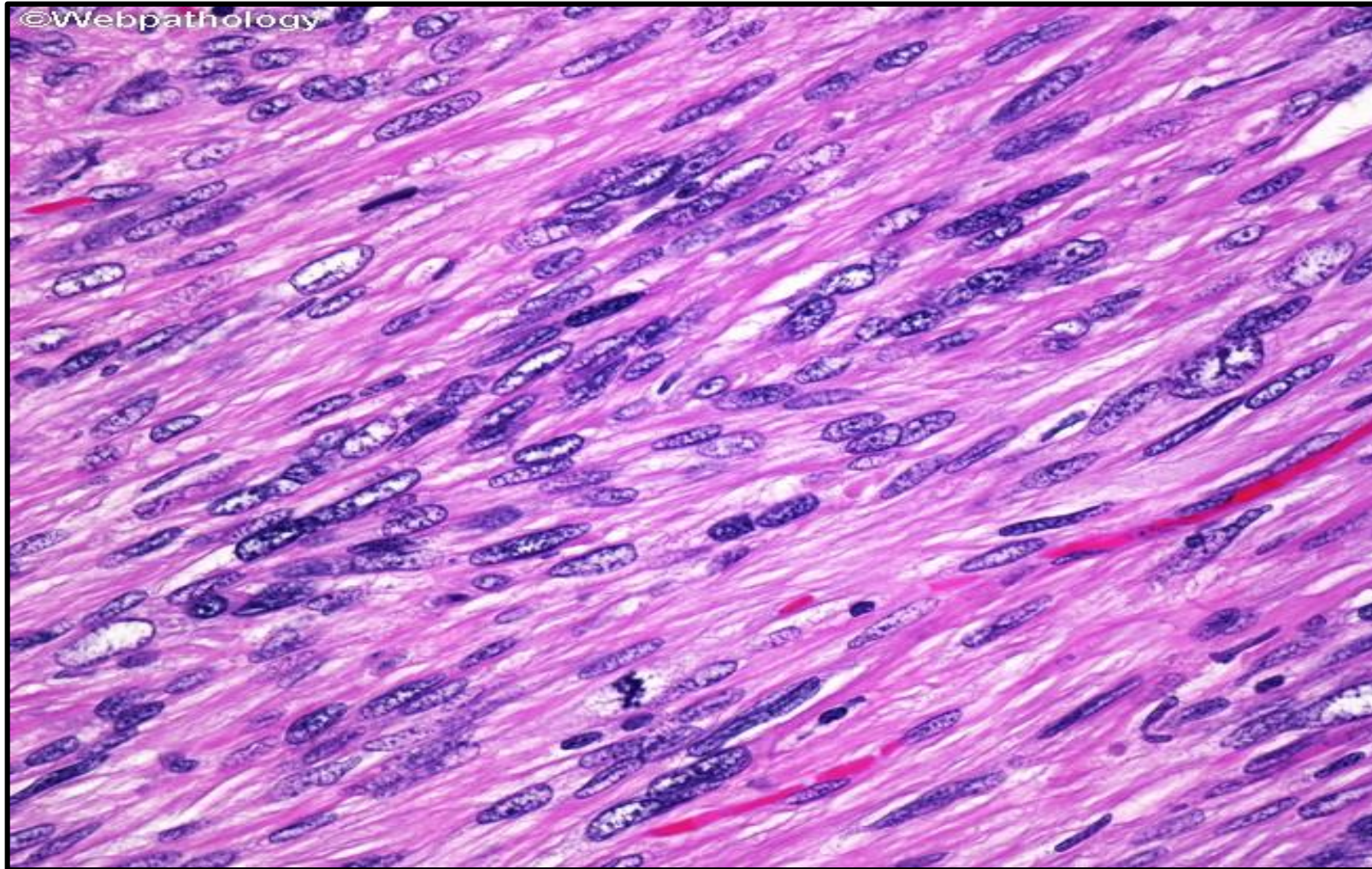
Leiomyosarcoma of Small Intestine



This is a leiomyosarcoma of the small bowel. As with sarcomas in general, this one is big and bad.

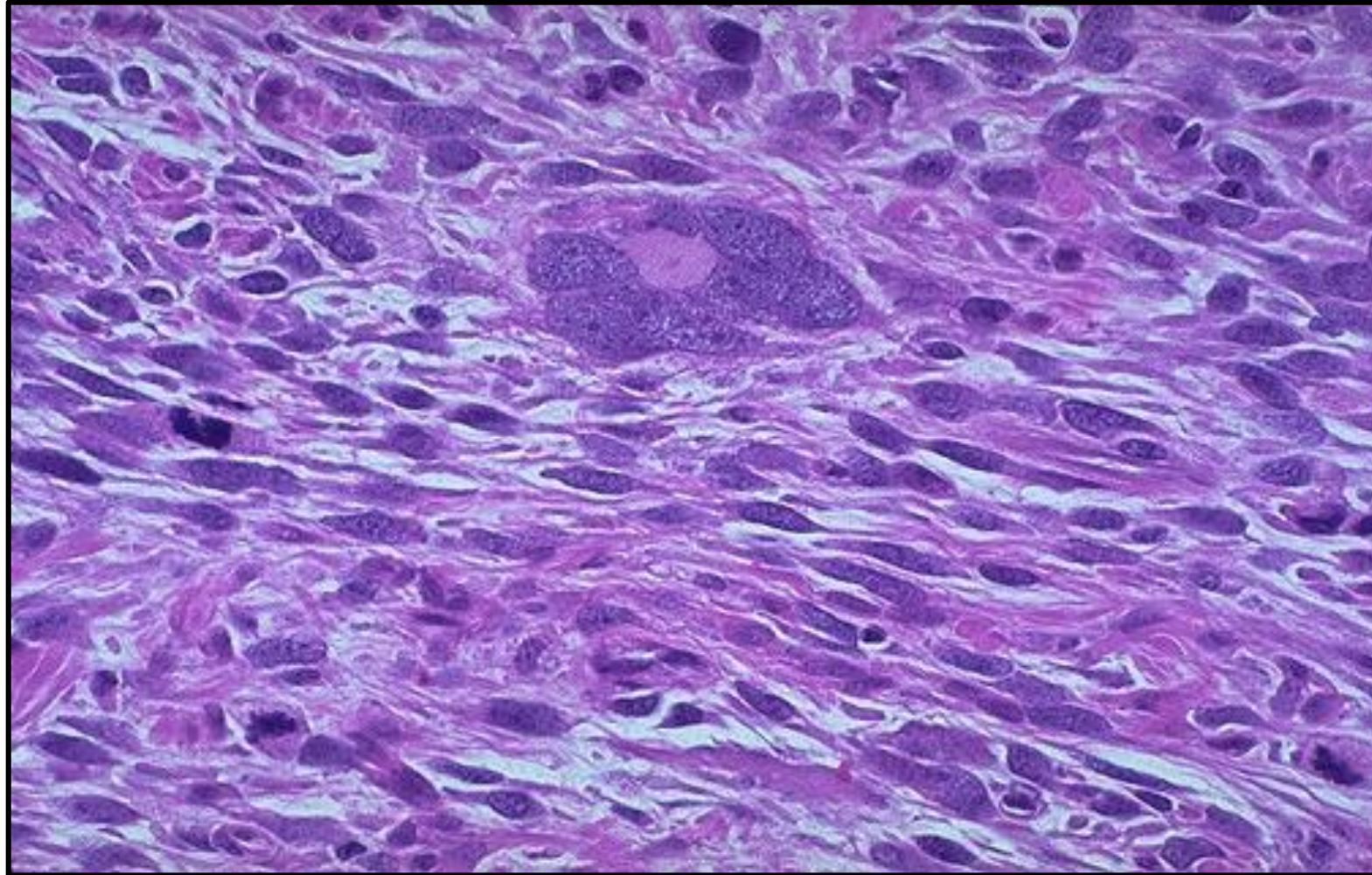
Sarcomas are uncommon at this site, but must be distinguished from other types of neoplasms.

Leiomyosarcoma – HPF Microscopy



- **Spindle shaped, large and pleomorphic malignant cells with cigar shaped nuclei arranged in fascicles.**
- **Increased mitotic figures.**

Leiomyosarcoma of the Uterus - HPF



***They often have very large bizarre giant cells along with the malignant spindle cells.
Mitotic figures are frequent.***

THE END