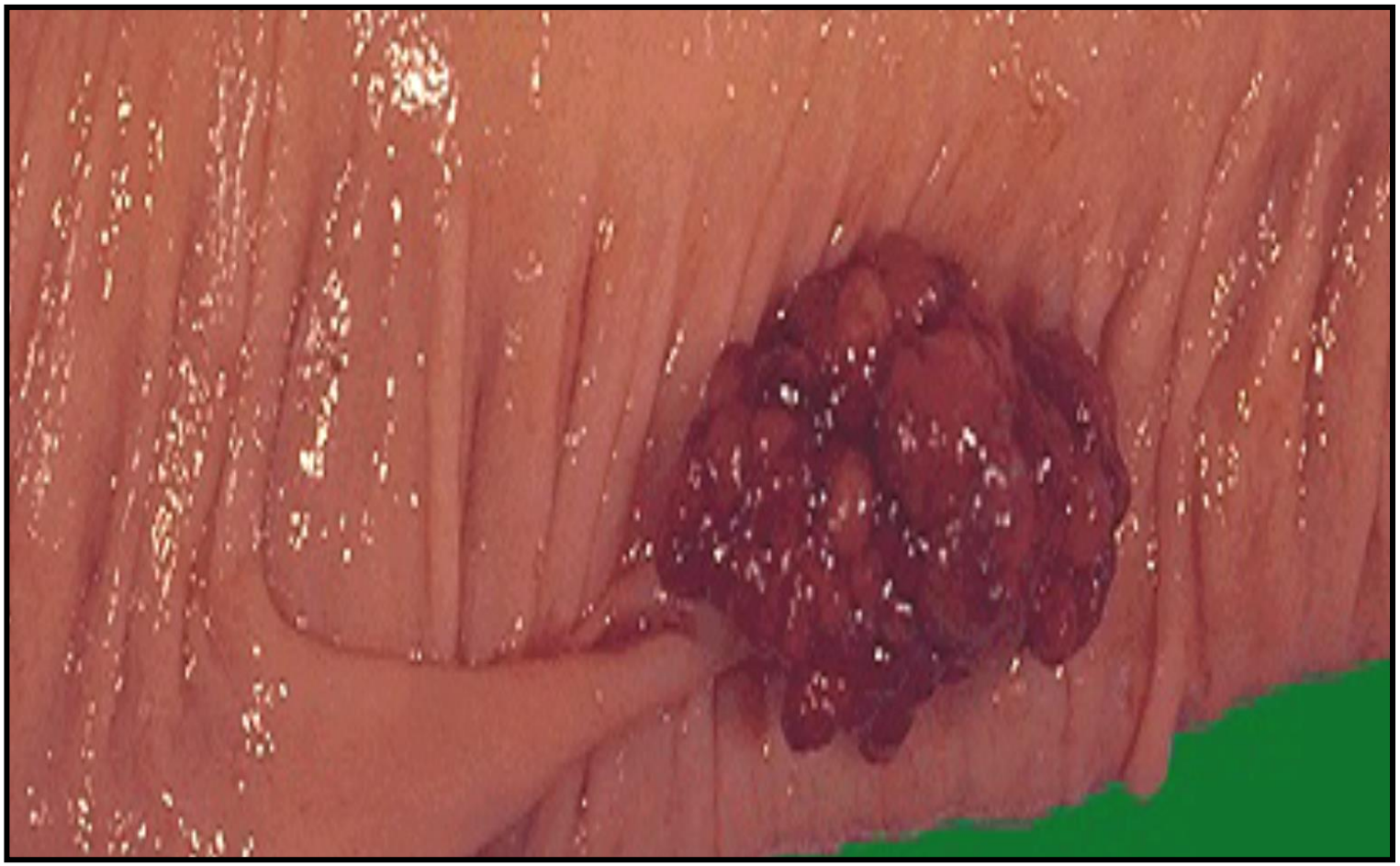
PRACTICAL 5

NEOPLASIA

(Benign Tumors)

1- Adenomatous Polyp of Rectum / Colon

Adenomatous polyp of the colon



Polypoid lesion showing a haemorrhagic area on its surface and a long narrow stalk.

The size of this polyp--above 2 cm--makes the possibility of malignancy more likely, but this polyp proved to be benign

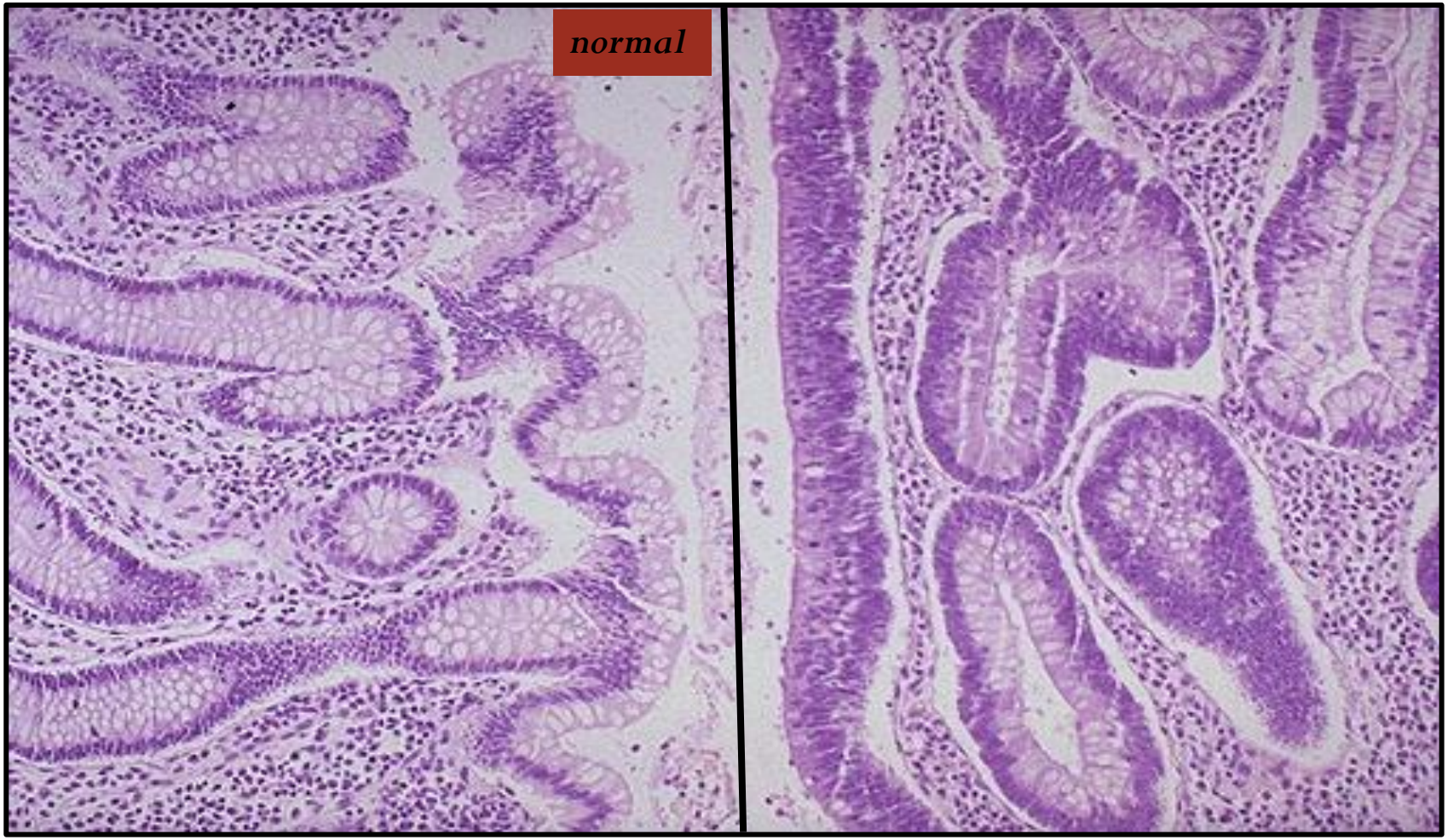
Adenomatous polyp of the colon

This small adenomatous polyp (tubular adenoma) on a small stalk is seen microscopically to have more ***crowded, disorganized glands*** *than the normal underlying colonic mucosa. Goblet cells are less numerous and the cells lining the glands of the polyp have hyperchromatic nuclei*

Right

Adenomatous polyp of the colon

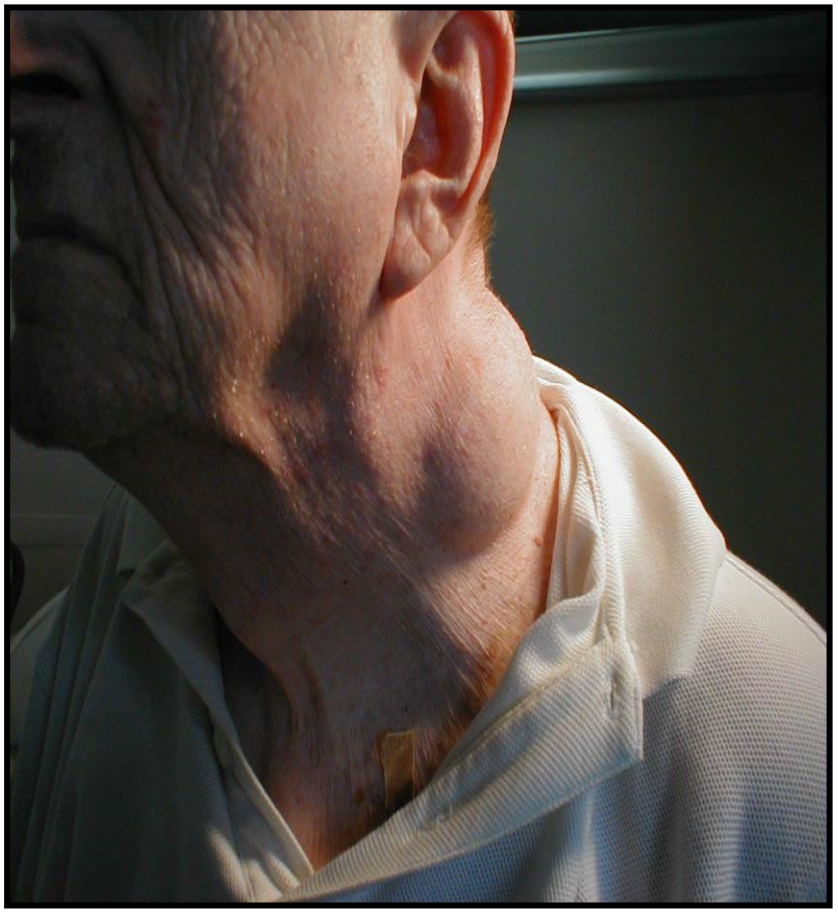
Left



A microscopic comparison of normal colonic mucosa on the right and that of an adenomatous polyp (tubular adenoma) on the left is seen here.The neoplastic glands are more irregular with darker (hyperchromatic) and more crowded nuclei

2- Lipoma

Lipoma of the Neck



Benign, slow growing, subcutaneous skin growth. In this case, the lipoma is rather large and located in the neck region.

On palpation, these are soft, non tender, and mobile if it is small size.

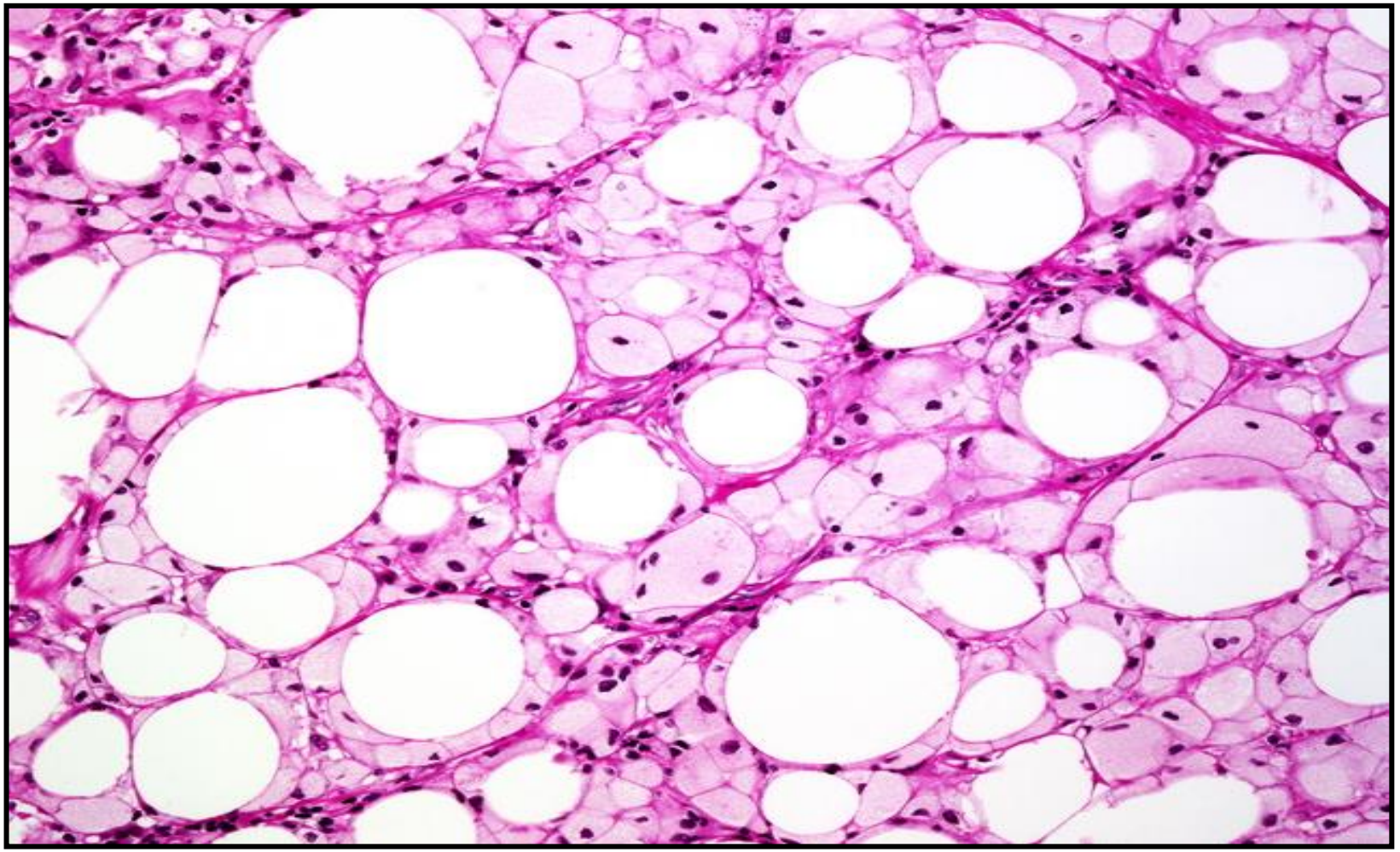
Lipoma – Cut section

Lipoma is a benign tumor composed of mature adipose tissue.

Most of them are superficially located in the upper part of the body, although they can arise anywhere.

Grossly, they appear bright yellow and lobulated

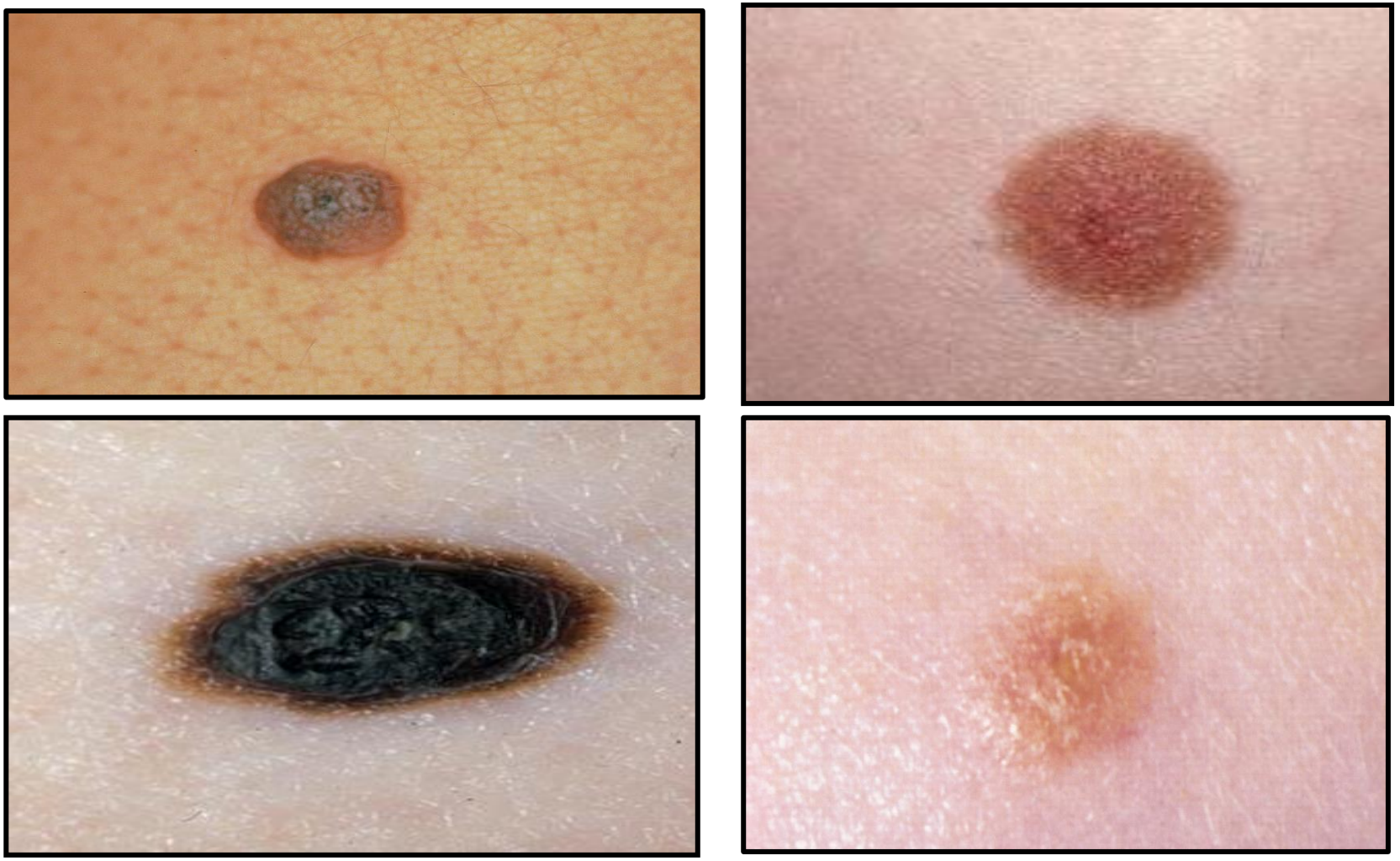
Lipoma with fat necrosis



This picture shows an area of fat necrosis within a lipoma.The masses are comprised primarily of mature adipocytes. Histiocytes present within these areas should not be mistaken for lipoblasts

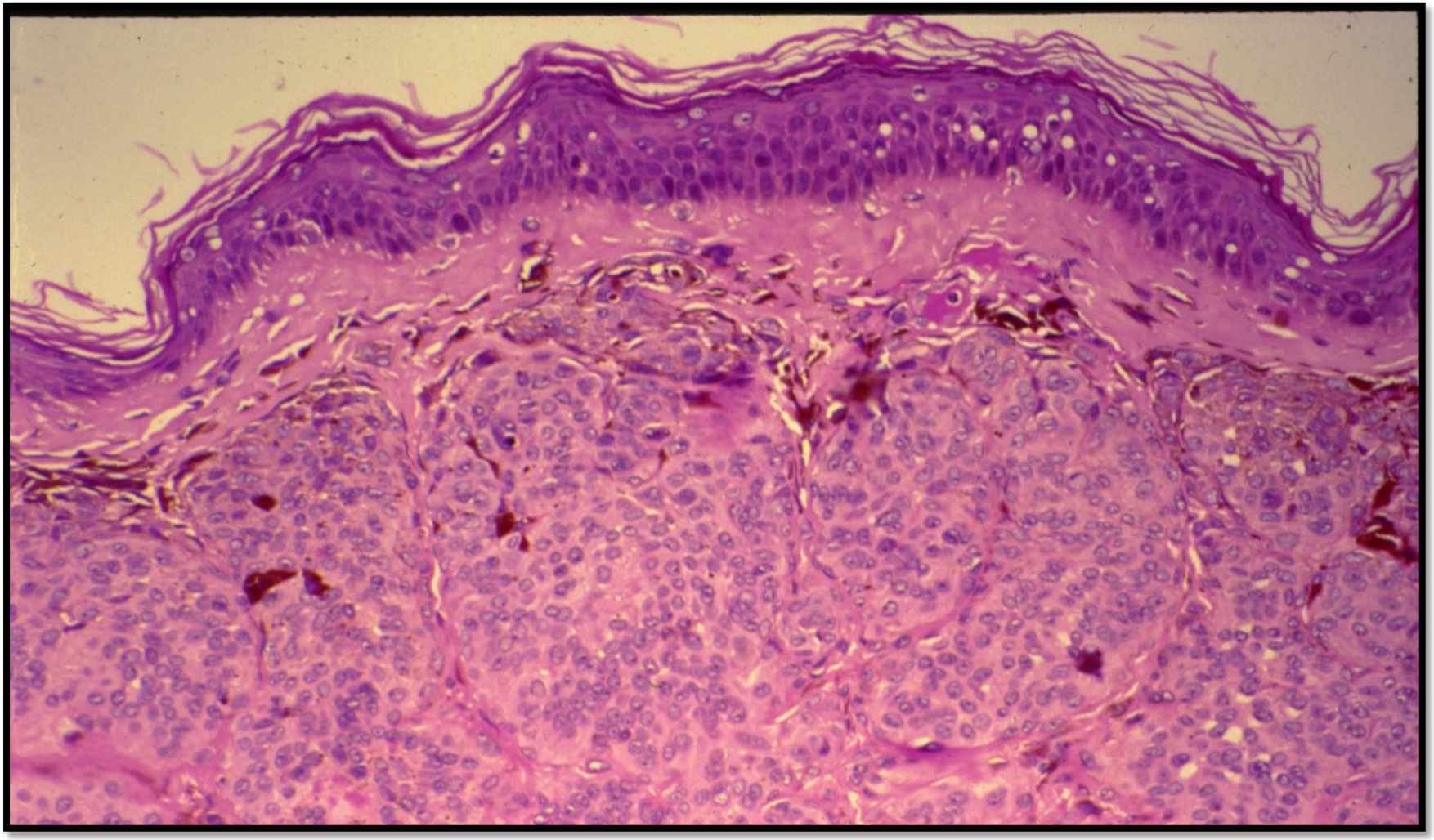
3- Intradermal Nevus

Intradermal Nevus



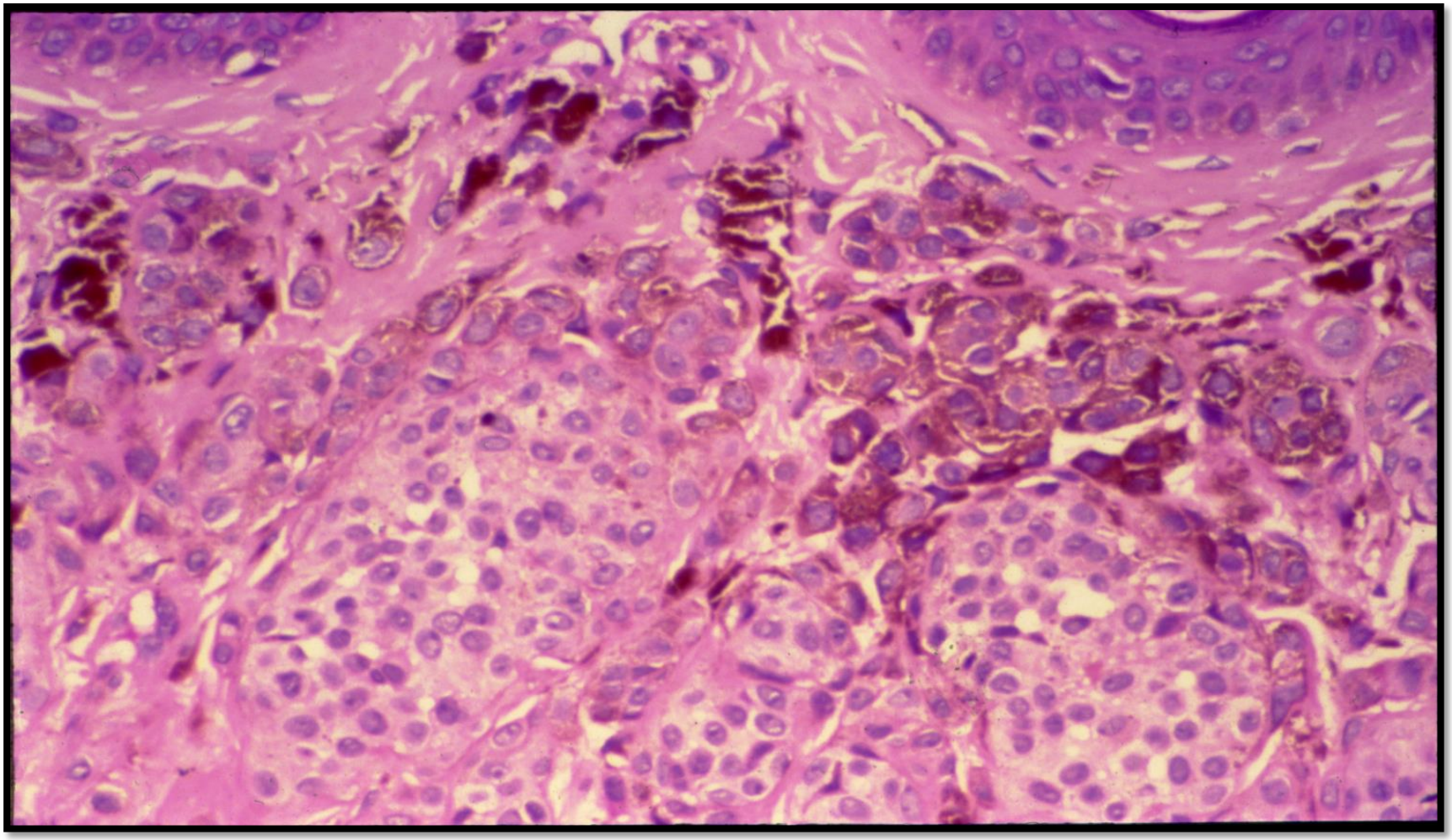
The lesion is small, symmetrical, and uniformly has different colors (Pink – Tan – Brown etc)

Intradermal Nevus - LPF



Nests and clusters of small round or spindle shaped nevus cells with few melanophages in the upper dermis.

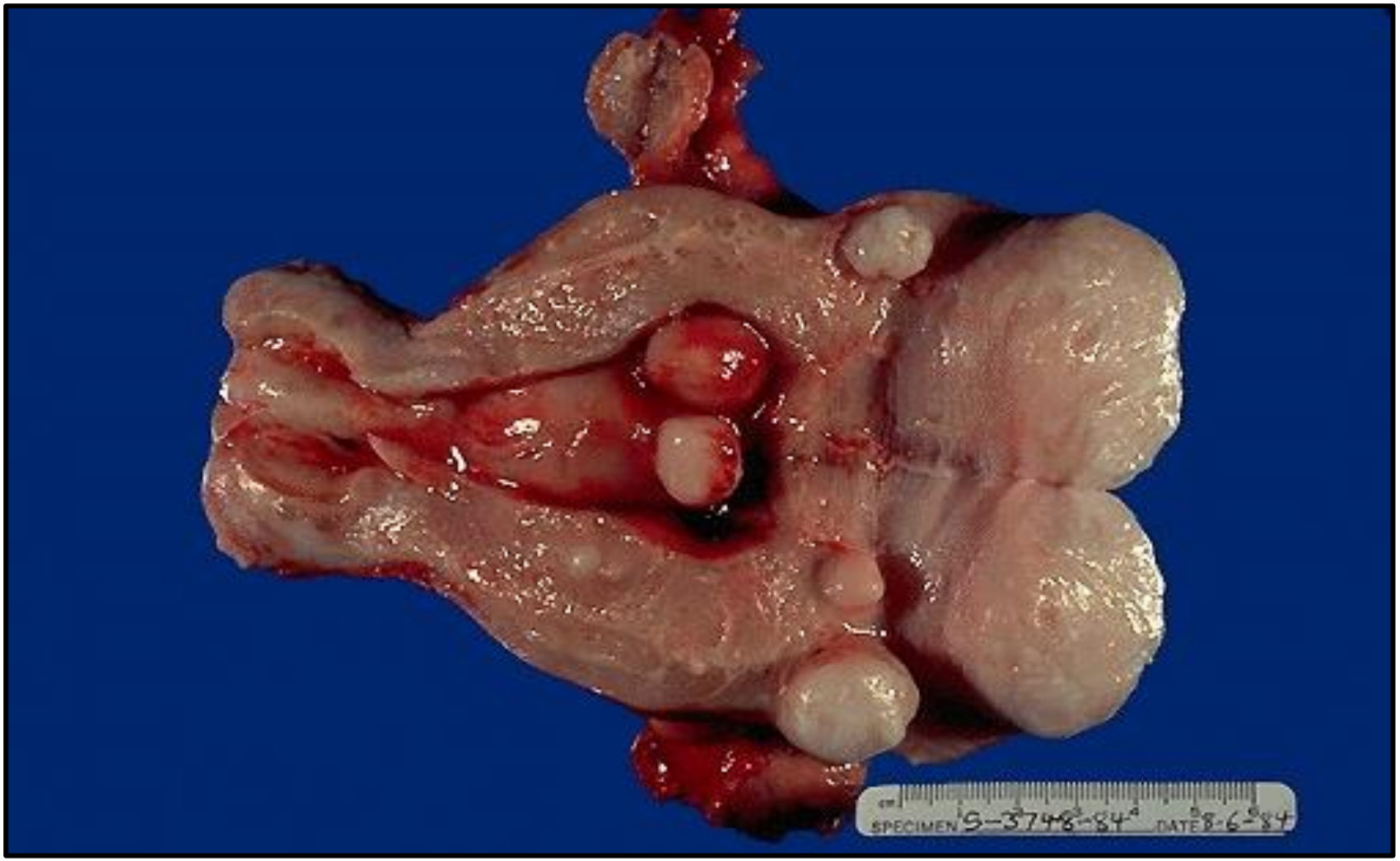
Intradermal Nevus - HPF



The cells contain varying amount of brown melanin pigment. No junctional activity

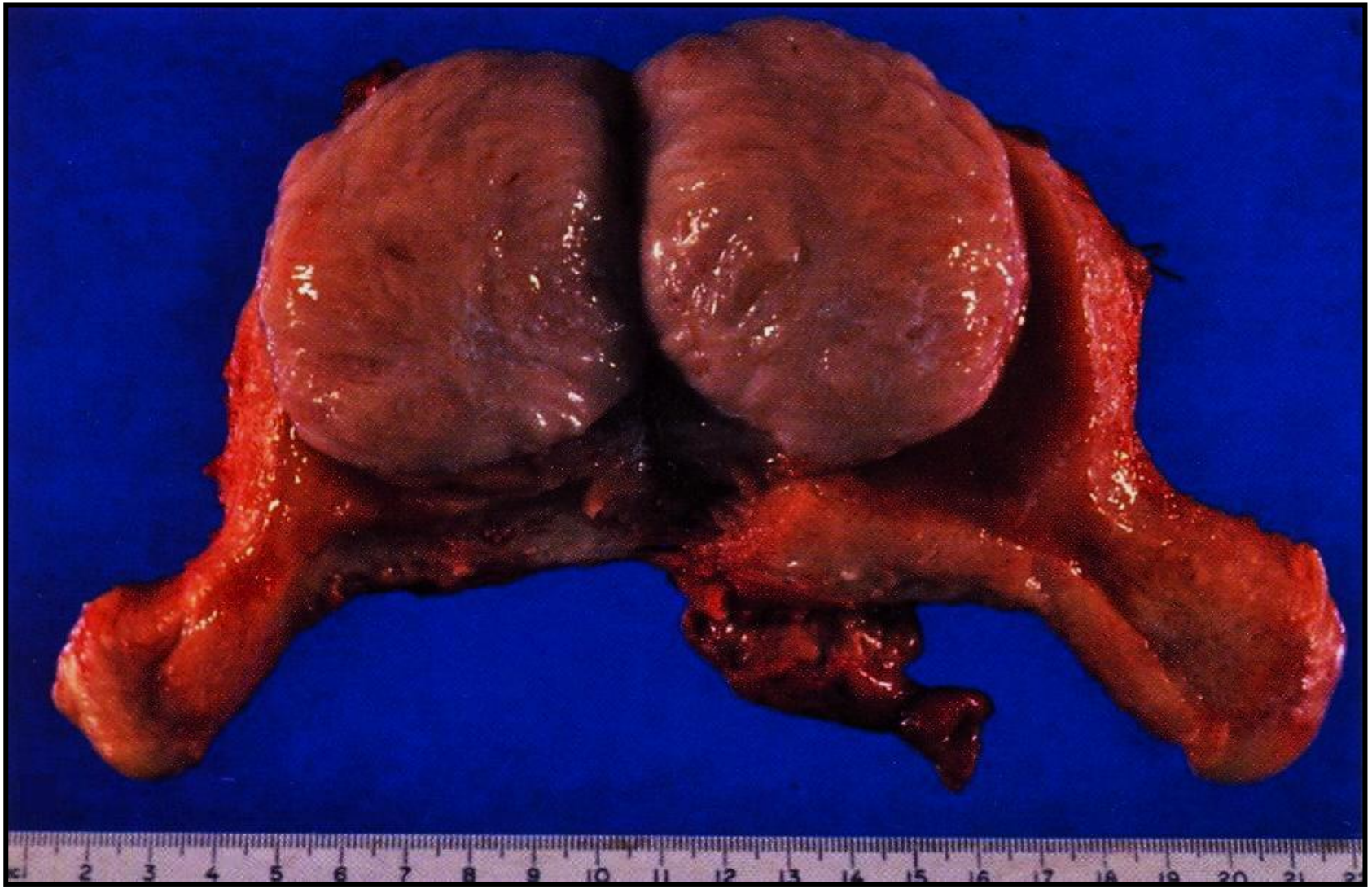
4- Uterine Leiomyomata

Multiple Uterine Leiomyomata - Gross



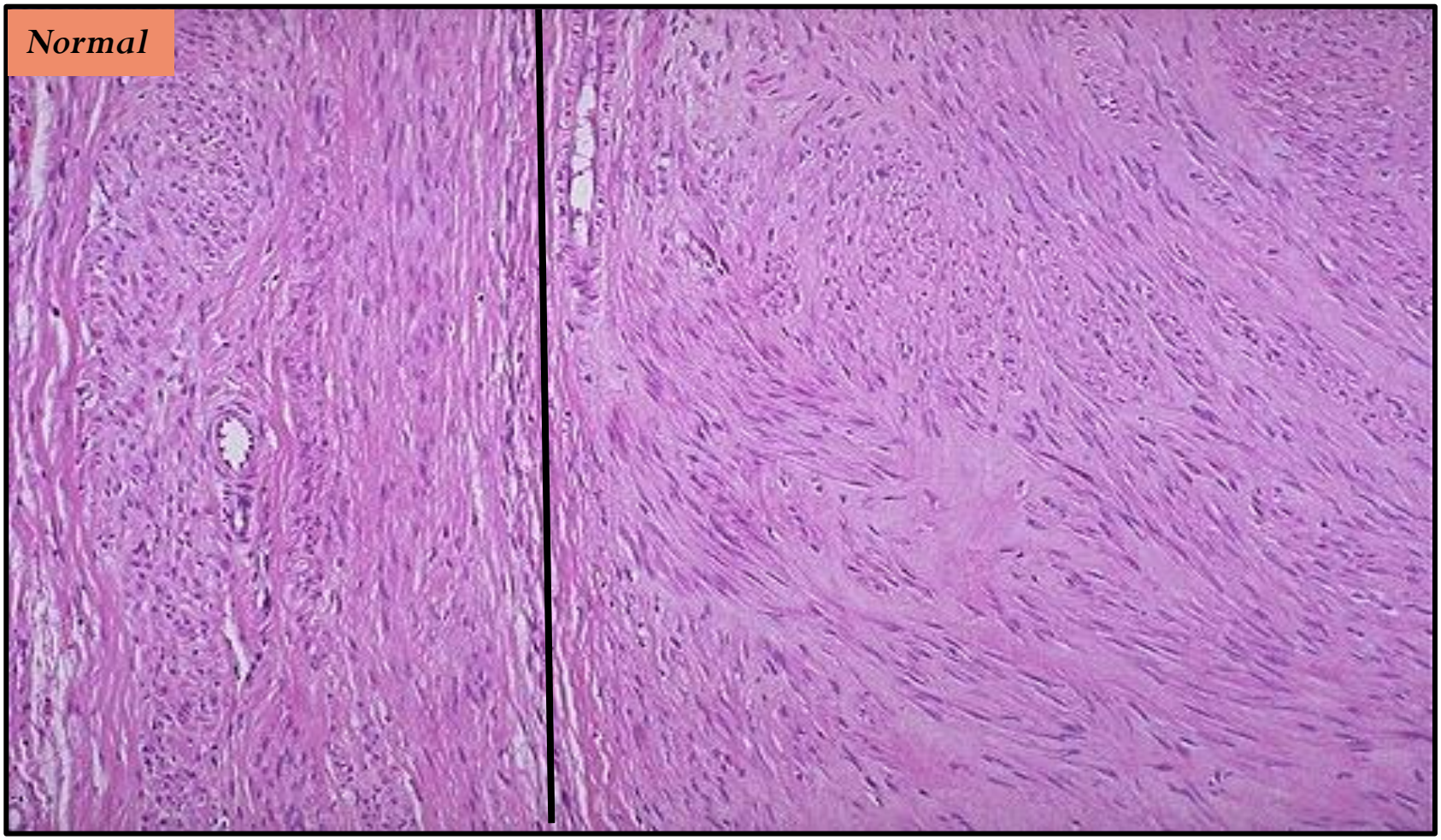
Smooth muscle tumors of the uterus are often multiple. Seen here are submucosal, intramural, and subserosal leiomyomata of the uterus.

Multiple Uterine Leiomyomata - Gross



A well demarcated tumour mass in the muscle coat of uterus without a definite capsule.

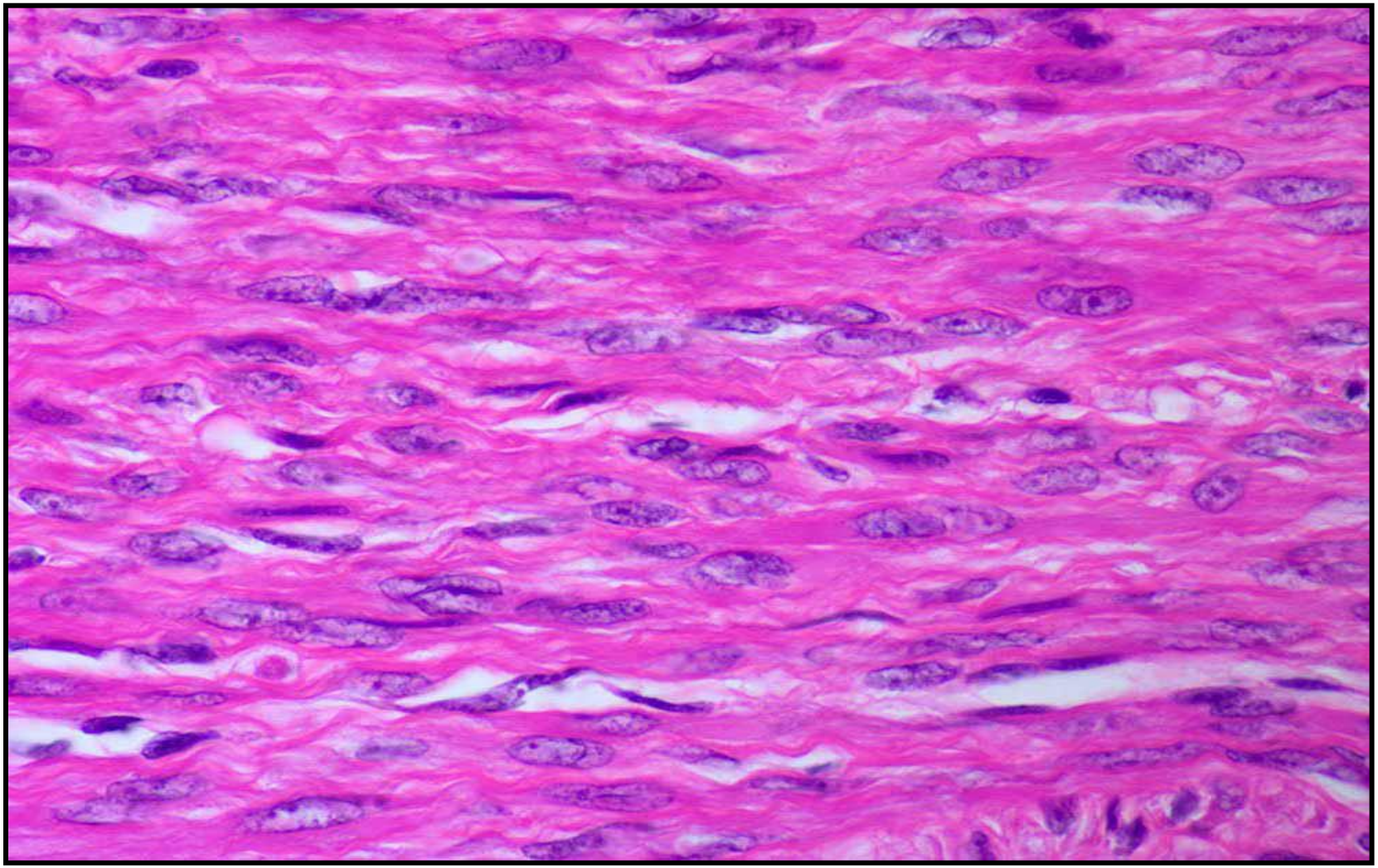
Uterine Leiomyoma – LPF Microscopy



Normal myometrium is at the left, and the neoplasm is well-differentiated so that the leiomyoma at the right hardly appears different.

Bundles of smooth muscle are interlacing in the tumor mass

Uterine Leiomyoma – HPF Microscopy



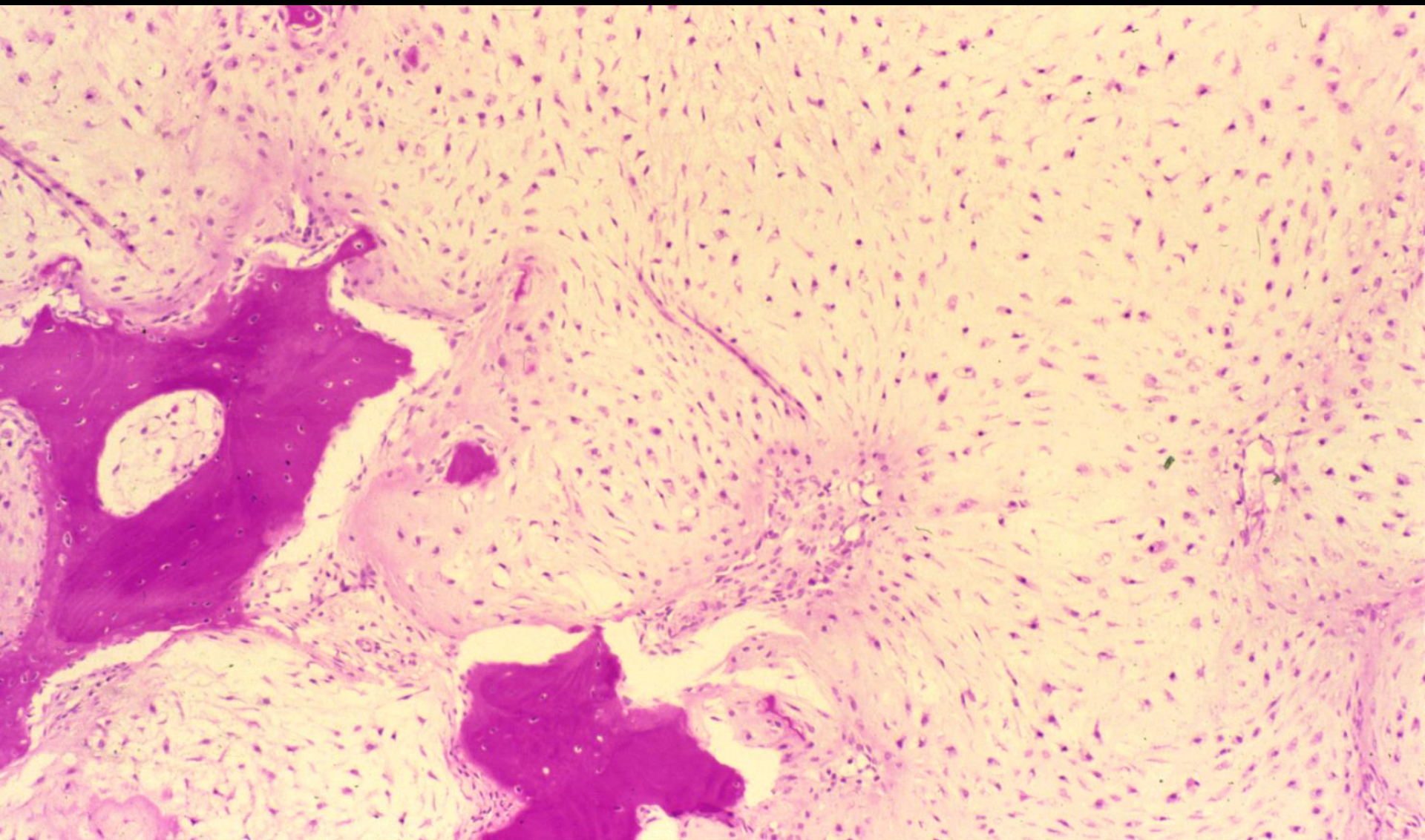
The muscle cells are spindle shaped with elongated nuclei and eosinophilic cytoplasm

5- Chondroma

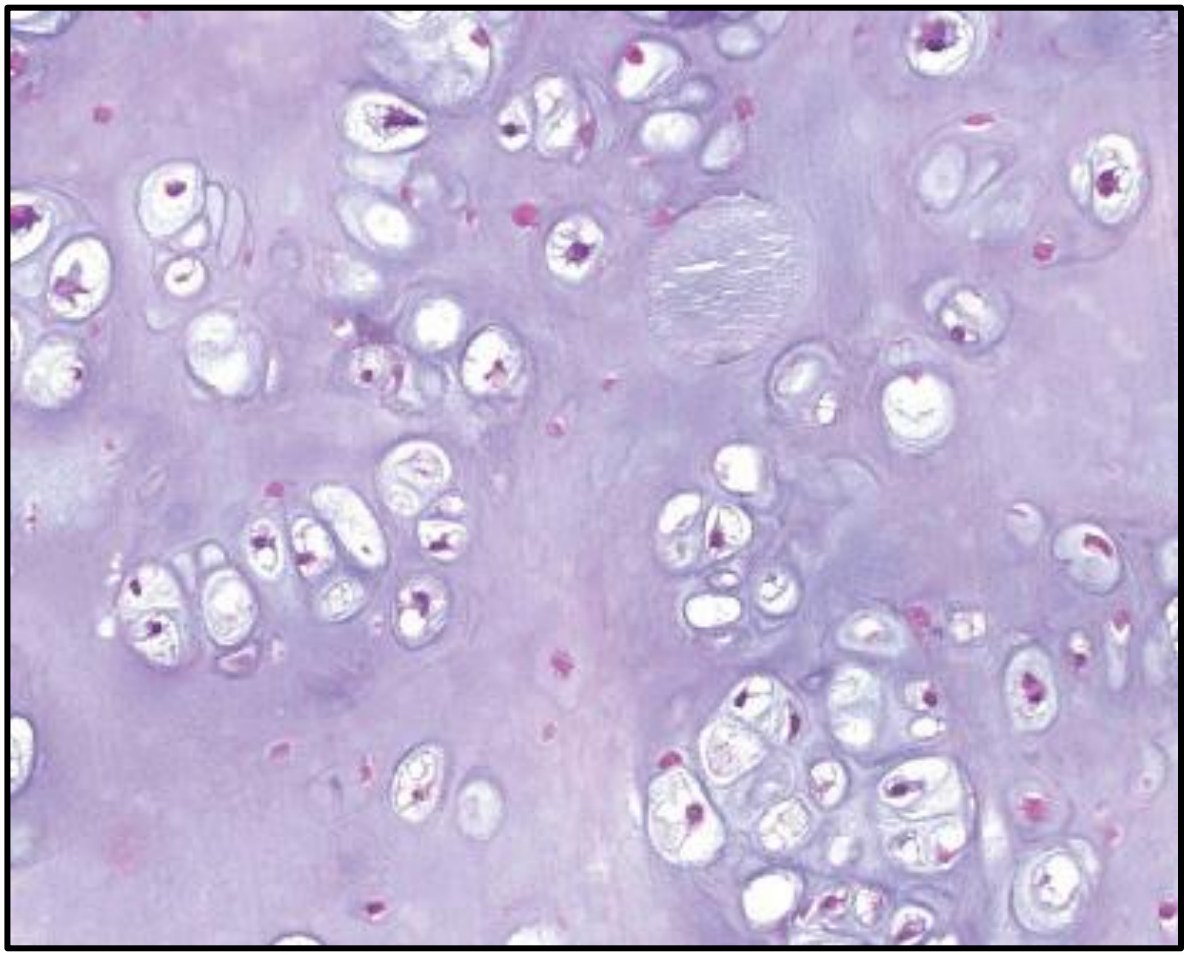
Enchondroma of the fibula

The picture shows intramedullary bone expansion, chondromyxoid material, thin bone cortex.

CHONDROMA OF BONE



Enchondroma of the bone - HPF



Lobules consist of mature cartilage cells (chondrocytes) irregularly distributed through pale blue homogenous matrix and are contained within the lacunar spaces singly, in pairs or in tetrads

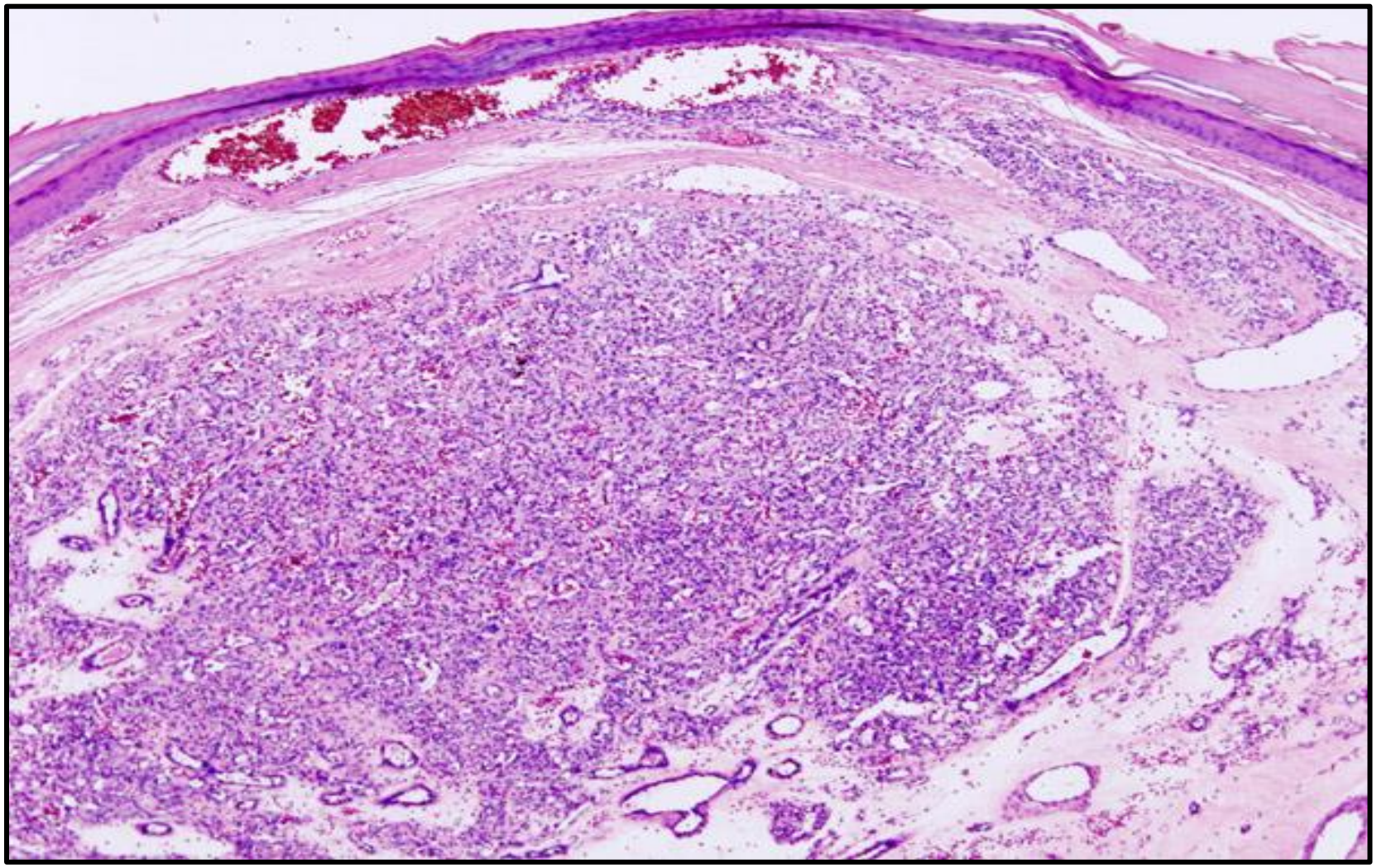
Condrocyte nuclei tend to be small, round and hyperchromatic. Irregular purple granules within the matrix represent calcifications.

6 - Hemangioma

Hemangioma of the Skin

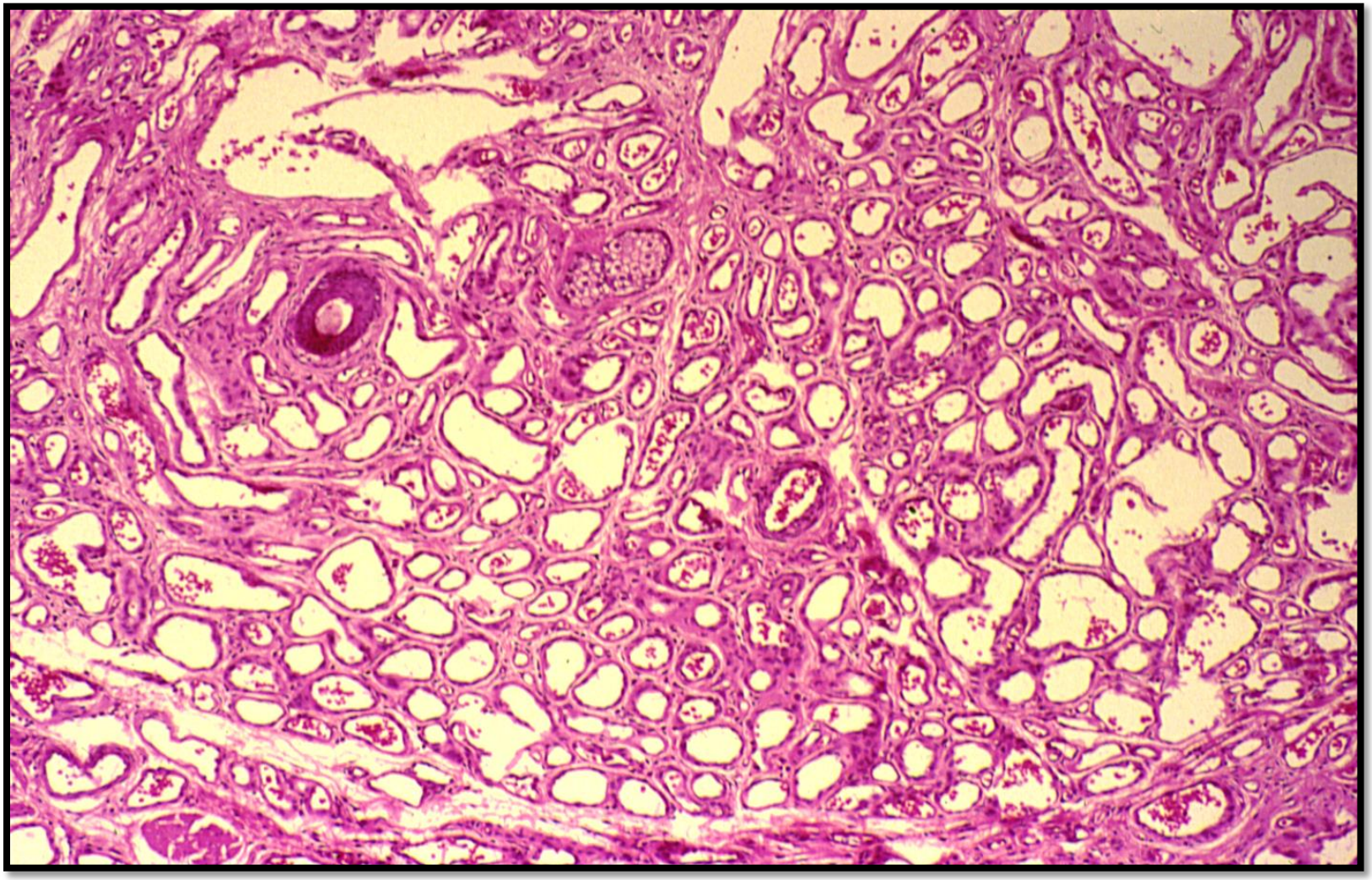
A deep red tumour mass in the dermis

Capillary Hemangioma of the skin – LPF



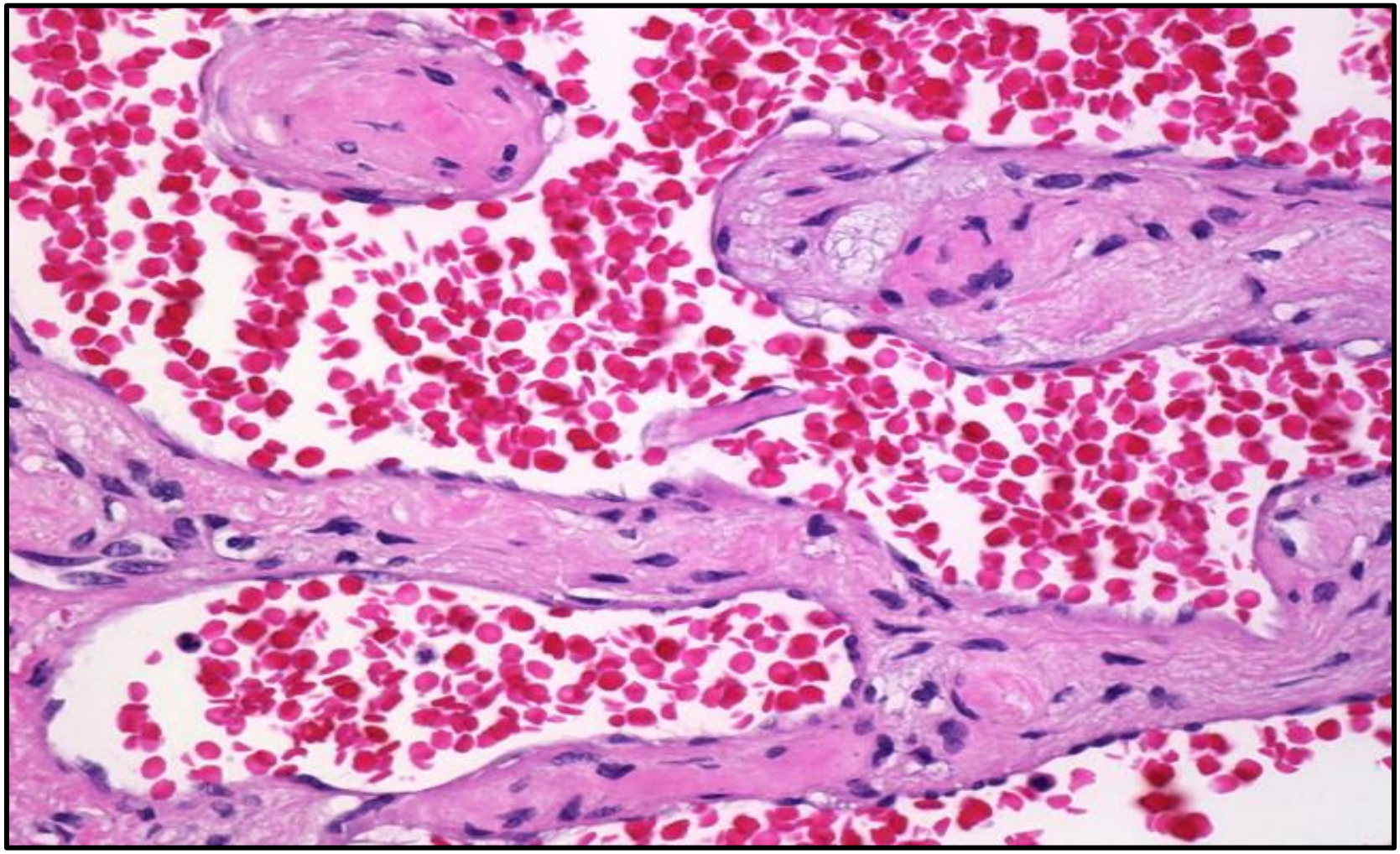
It consists of large number of vascular spaces of varying shapes and sizes separated by connective tissue stroma.

Capillary hemangioma of the skin - LPF



Vascular spaces are lined by the flattened endothelial cells and some contain blood. Delicate connective tissue stroma separated the capillary vascular spaces

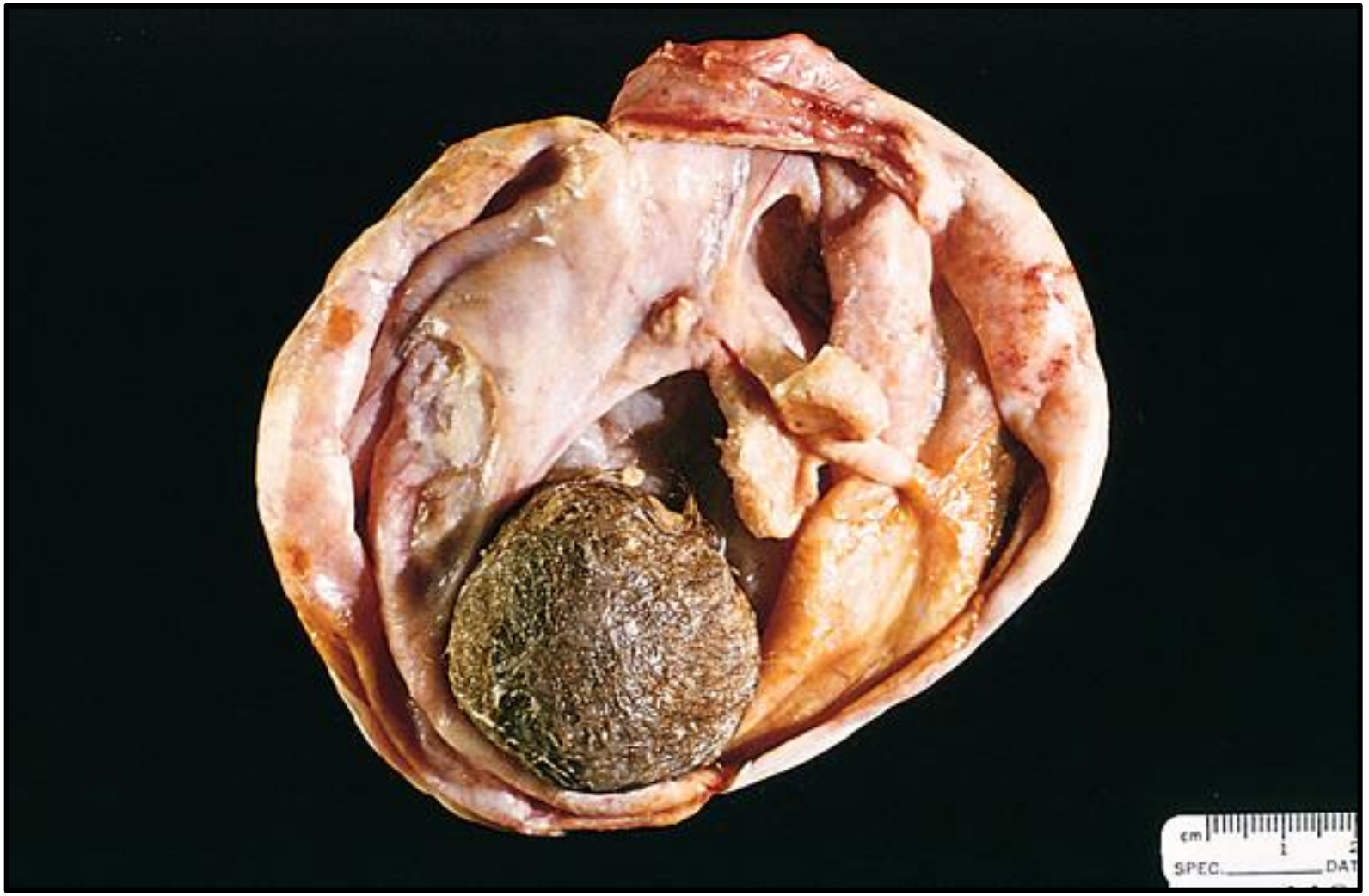
Cavernous Hemangioma of Skin – HPF



Large cavernous hemangioma

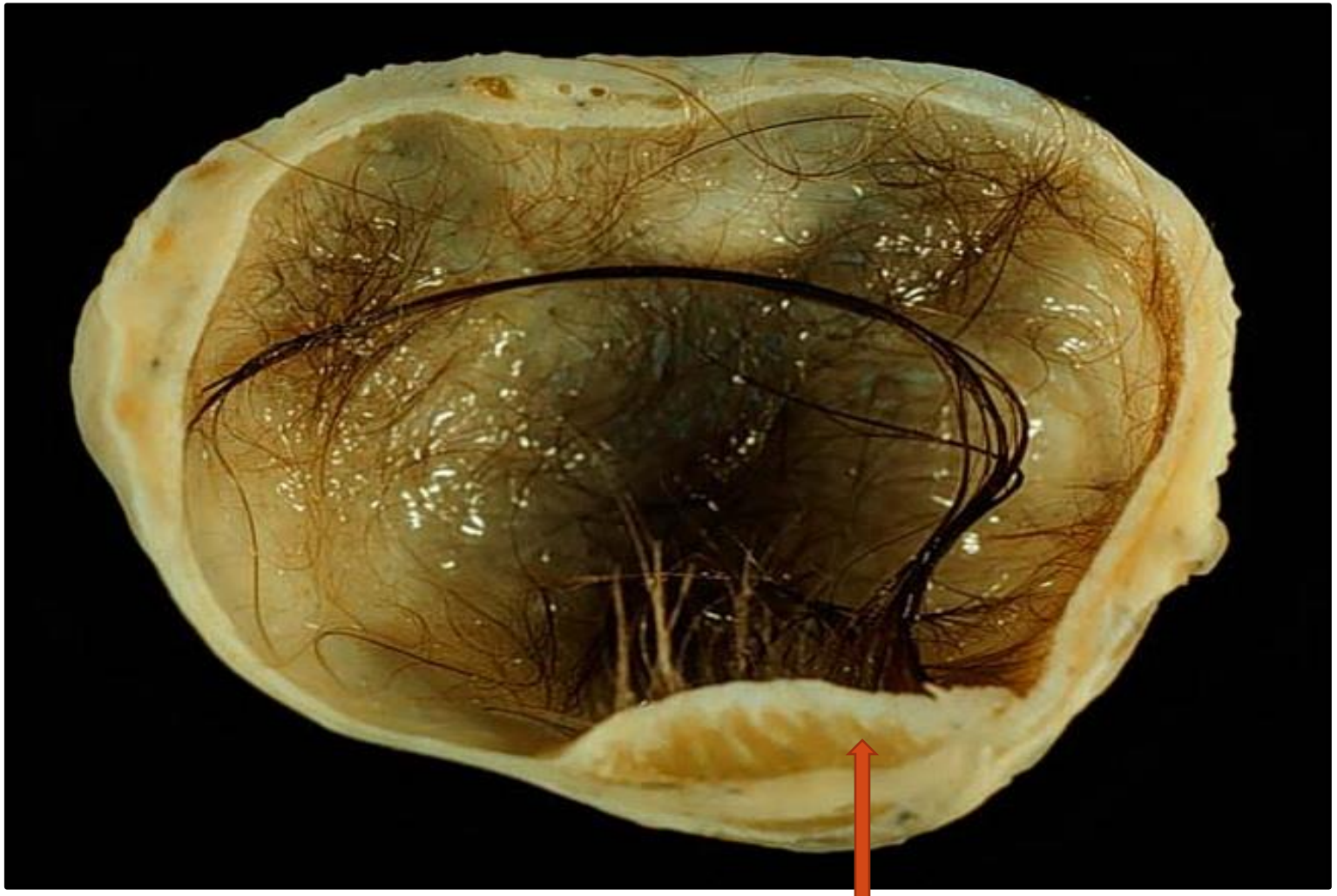
7- Teratoma (dermoid cyst) of the ovary

Ovary: Mature Cystic Teratoma



Opened mature cystic teratoma (dermoid cyst) shows hair (bottom) and a mixture of tissues .

Ovary: Mature Cystic Teratoma

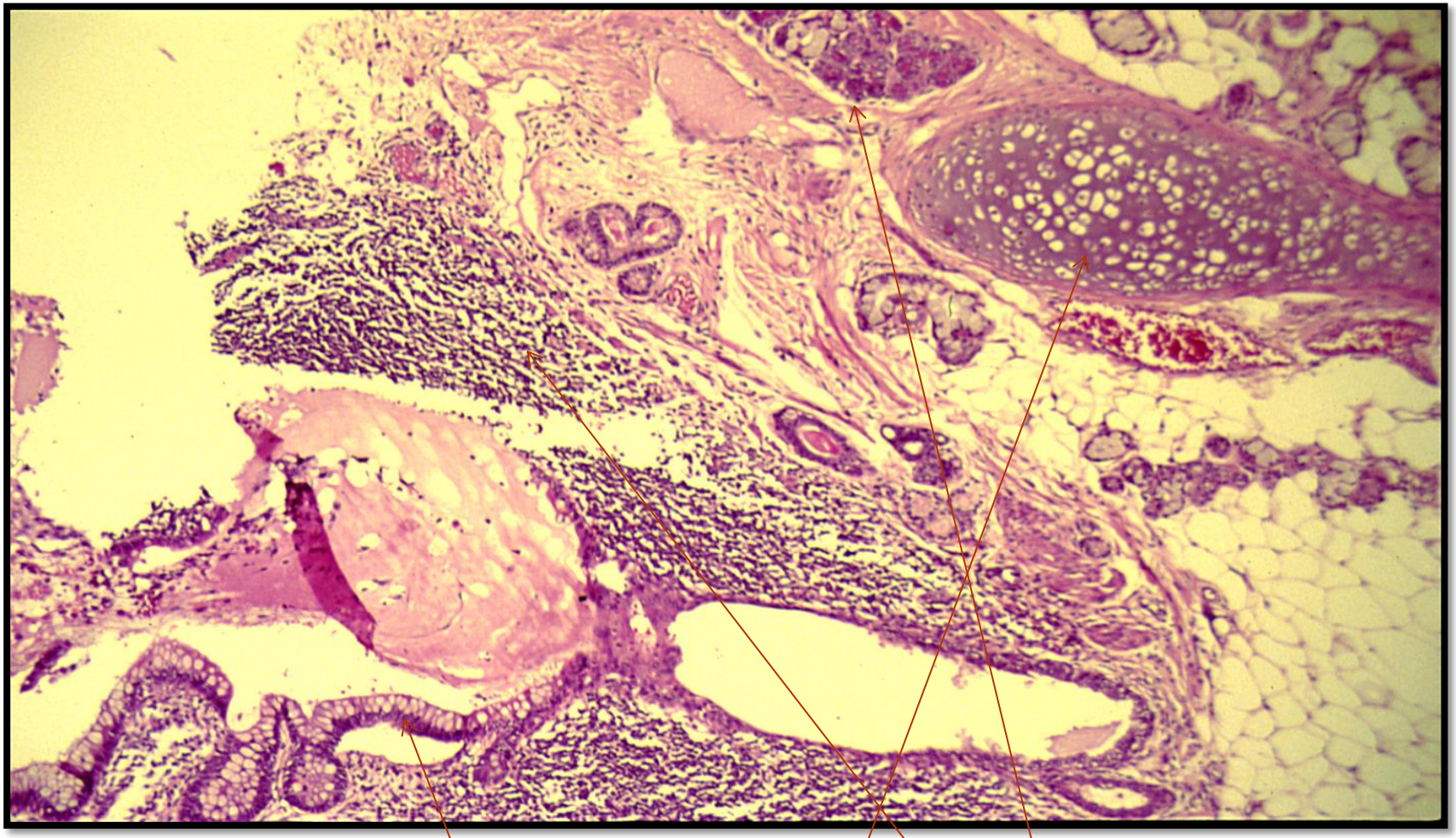


This 4.0 cm dermoid cyst is filled with greasy material (keratin and sebaceous secretions) and shows tufts of hair.

The rounded solid area at the bottom is called Rokitansky's protruberance.

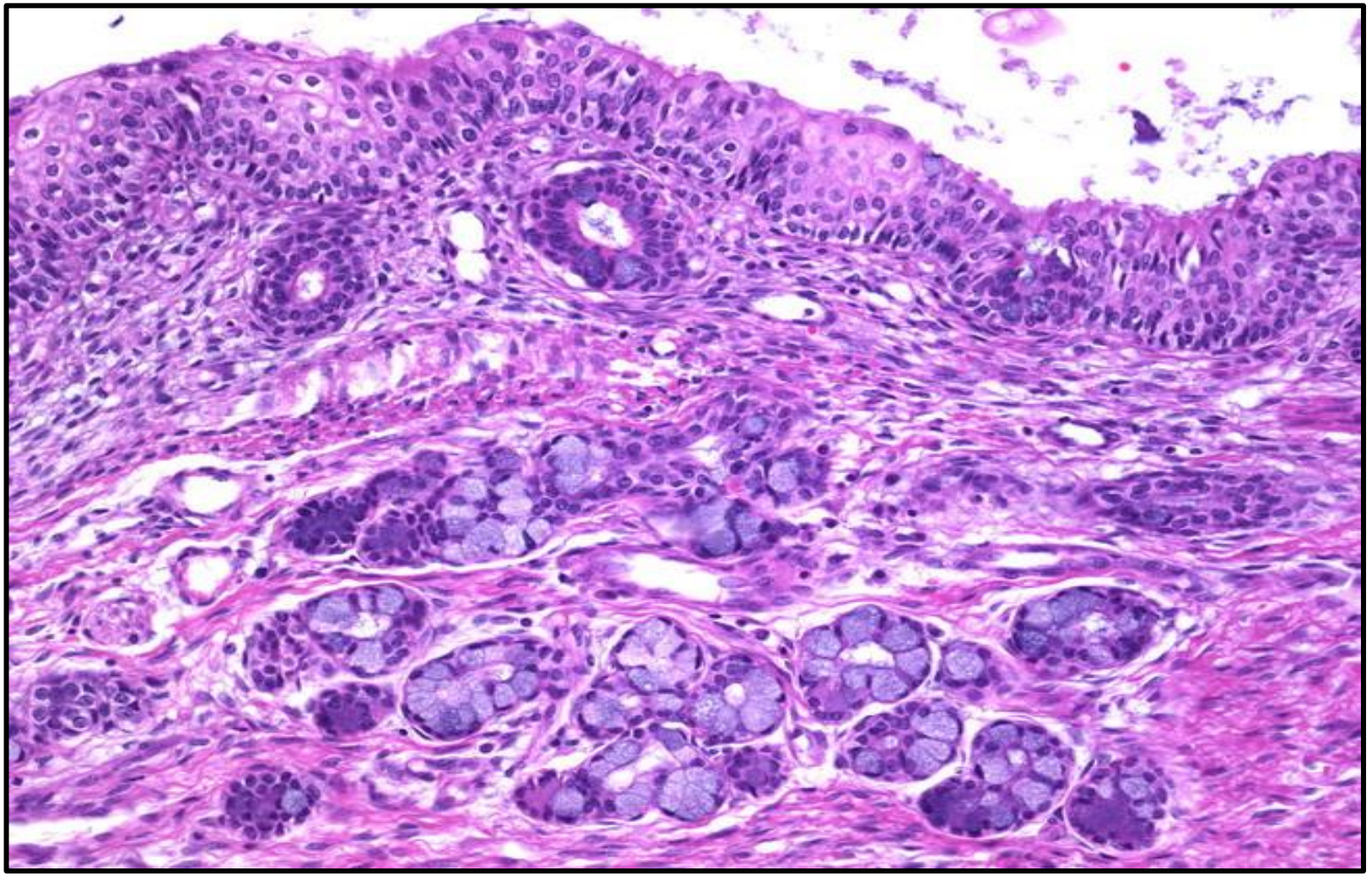
Microscopically, it also showed foci of neural tissue.

Ovary: Mature Cystic Teratoma



Stratified Squamous epithelium with underlying sweat glands, sebaceous glands, hair follicles, columnar ciliated epithelium, mucous and serous glands and structures from other germ layers such as bone and cartilage, lymphoid tissue, fat and brain tissue containing neurons and glial cells

Ovary: Mature Cystic Teratoma



This image shows skin and mucinous glands in a mature solid teratoma of the ovary