

Some malignant tumors

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Malignant tumors

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graph TD; A[Malignant tumors] --> B[Epithelial - Carcinoma]; A --> C[Connective tissue - Sarcoma]; B --> D[Squamous carcinoma]; B --> E[Adenocarcinoma]; B --> F[Transitional cell carcinoma]; C --> G[Fibrosarcoma]; C --> H[Malignant Fibrous histiocyctoma]; C --> I[Liposarcoma]; C --> J[Leiomyosarcoma]; C --> K[Osteosarcoma]; C --> L[Chondrosarcoma];
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Epithelial - Carcinoma



Squamous carcinoma

Adenocarcinoma

Transitional cell
carcinoma

Connective tissue - Sarcoma

Fibrosarcoma

Malignant Fibrous
histiocyctoma

Liposarcoma

Leiomyosarcoma

Osteosarcoma

Chondrosarcoma

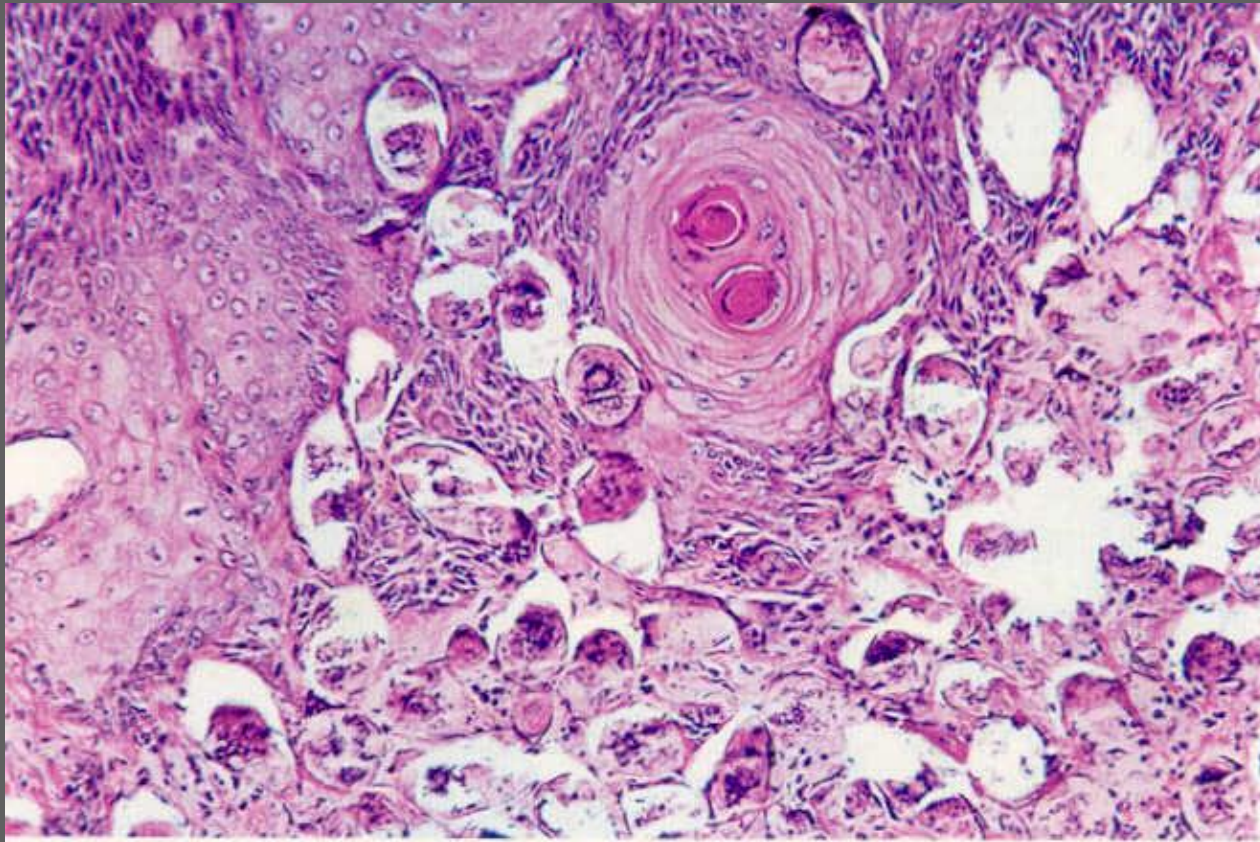
Squamous carcinoma

- Tumors arising in surfaces covered by squamous epithelium - skin. Mouth oesophagus, anus, cervix etc.
- Others - due to metaplasia
 - Respiratory epithelium
 - Genitourinary

Squamous carcinoma

- Macroscopy
 - Polypoid / Exophytic lesion
 - Nodular - carcinomatous ulcer.
- Microscopy
 - Carcinoma in situ - severe dysplasia
 - Differentiation of squamous cells - intercellular bridges and keratinization.
 - Keratin pearl formation.

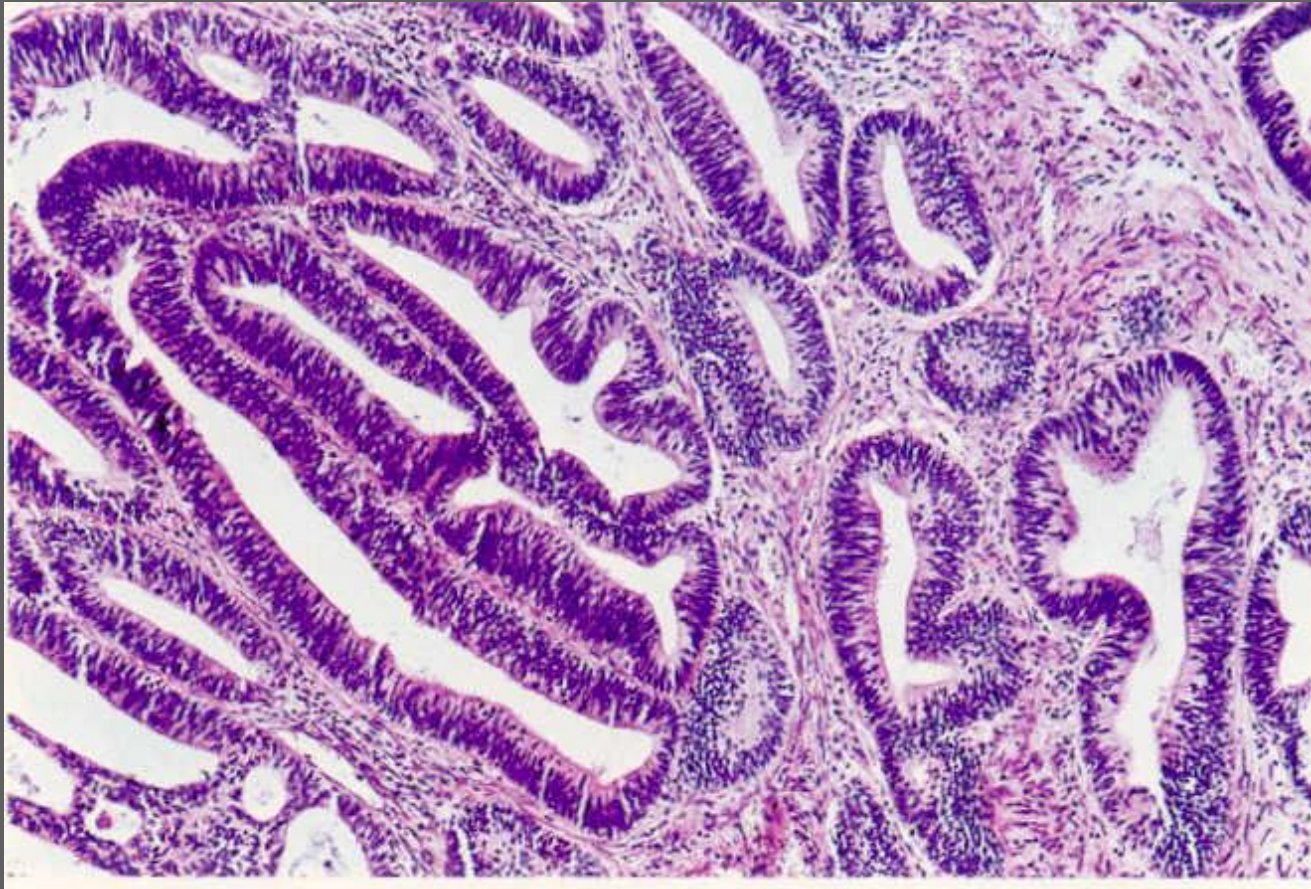
Squamous carcinoma – Note keratin pearls

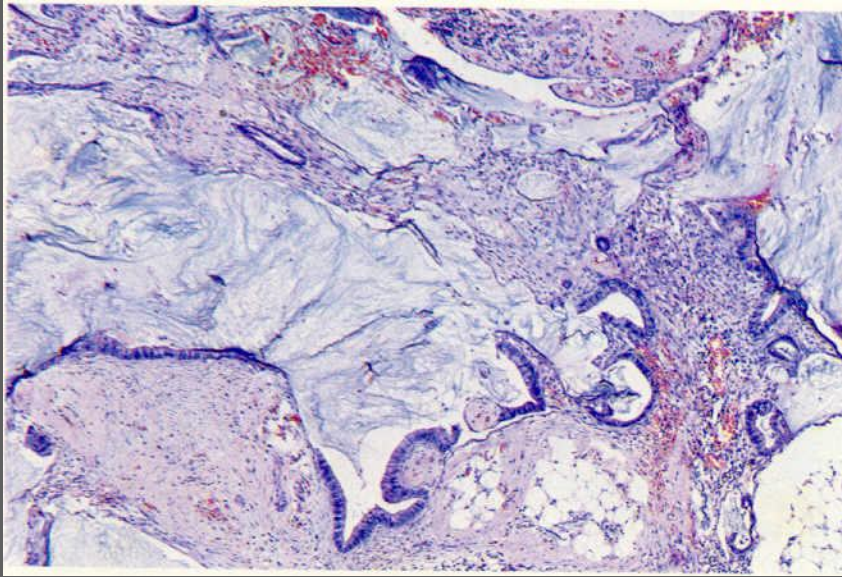


Adenocarcinoma

- Arising from surface secretory epithelia as well as from glands.
- Microscopy
 - Groups or clusters of malignant cells arranged into glandular / tubular / acinar structures containing a lumen.
- Variants
 - Mucoïd carcinoma / signet ring cell carcinoma
 - Duct carcinoma of the breasts

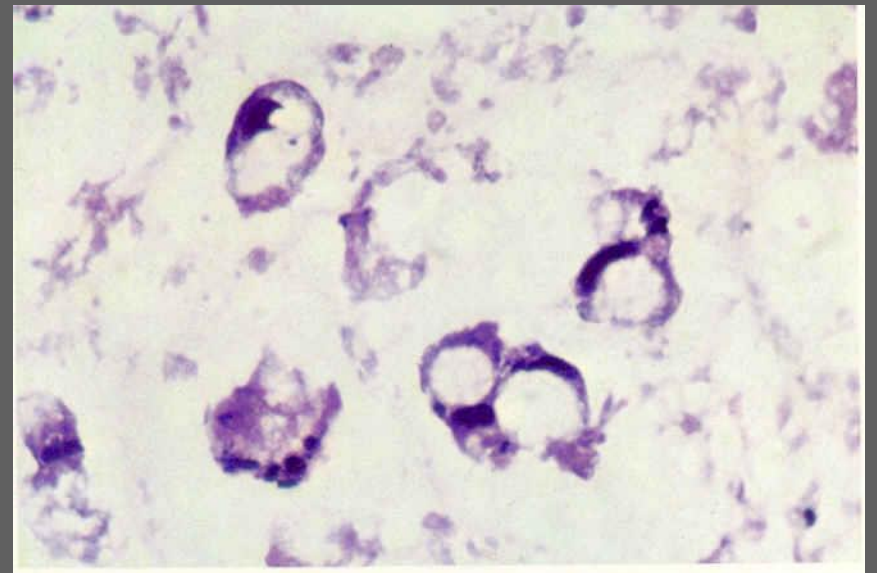
Endometrioid adenocarcinoma – note the glandular formations.





Mucinous carcinoma

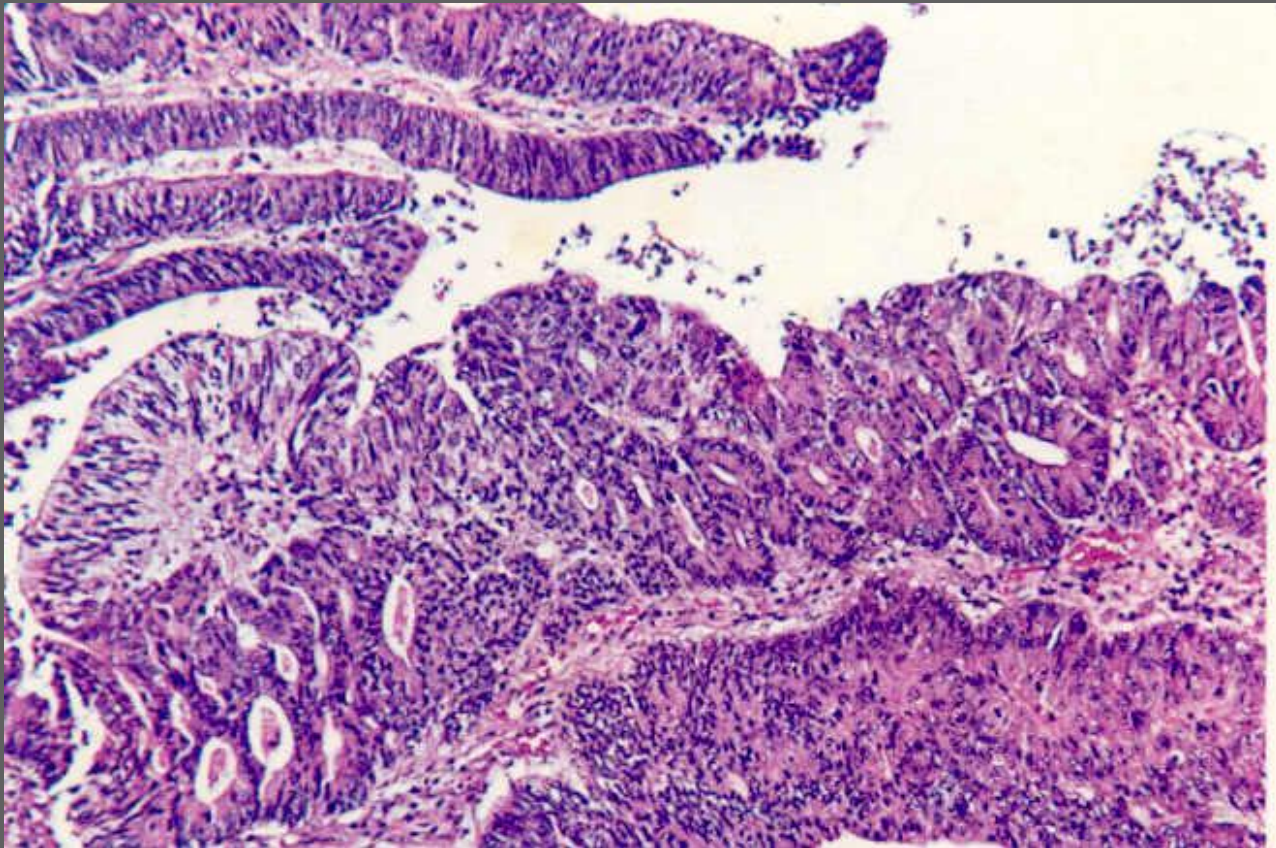
Signet ring cell carcinoma



Transitional cell carcinoma

- Pelvis, ureter, bladder
- Ovary due to mullerian derivation of surface epithelium - Brenner tumors
- Macroscopy -
 - Often papillomatous

Transitional cell carcinoma of the bladder



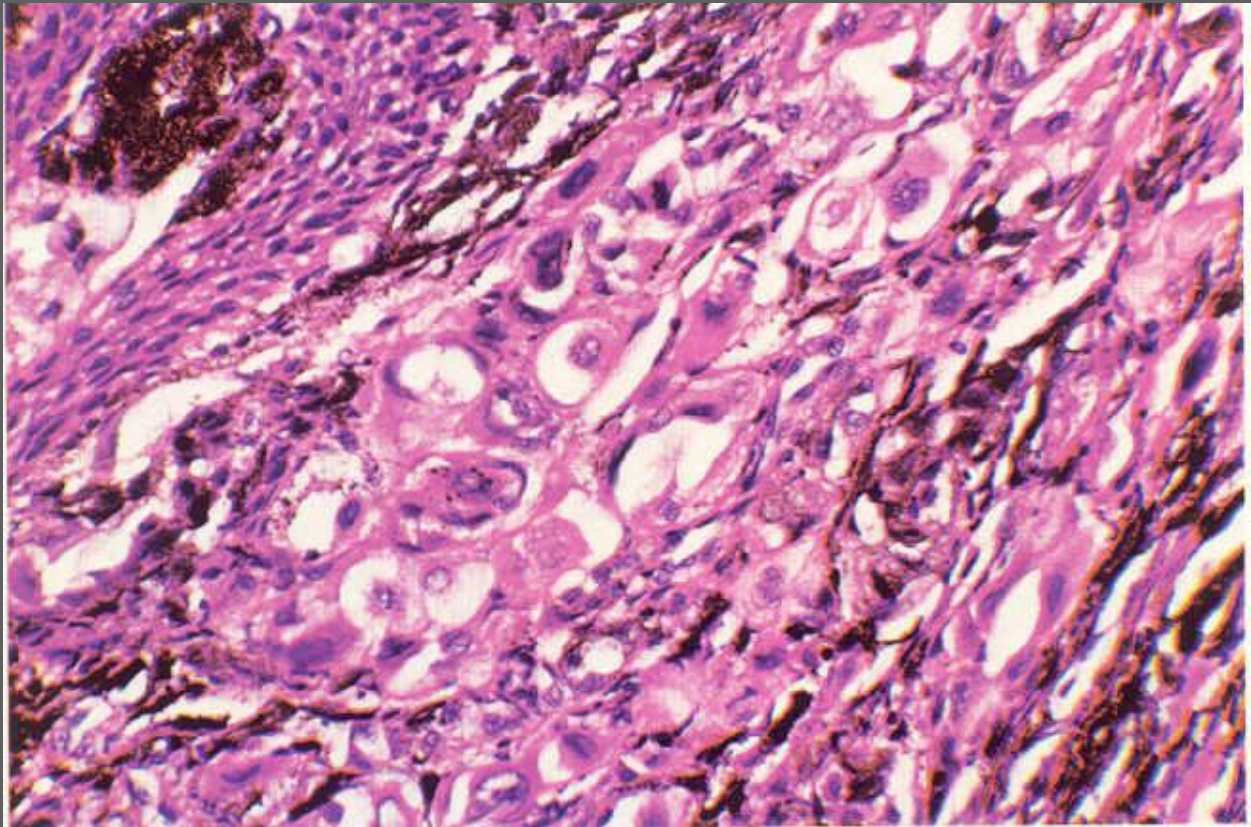
Special types malignant tumors

- Renal cell carcinoma
- Melanoma
- Lymphoma
- Duct carcinoma of the breast
- Hepatocellular carcinoma
- Bronchiolar alveolar carcinoma
- Small cell carcinoma

Malignant tumors of the skin

- Squamous carcinoma
- Sweat gland tumors - Benign and malignant.
- Basal cell carcinoma
- Malignant melanoma
- Lymphoma
- Connective tissue tumors
 - Leiomyosarcoma
 - Angiosarcoma
 - Atypical Fibroxanthoma

Malignant Melanoma



Carcinoma vs. Sarcoma

- Age group - middle - old age.
- Common tumor.
- Arranged in groups of cells except when anaplastic.
- Stroma - well formed.
- All ages of life. Commoner in young.
- Less common tumour.
- Arranged in diffuse sheets
- Intimately related to stroma

Carcinoma vs. Sarcoma

- Haemorrhage and necrosis much less extensive.
- Growth pattern - somewhat slow growing
- Metastases
 - Early lymphatic spread
 - Blood spread evident.*
- Much more extensive.
- Usually rapid.*
- Blood born metastases is the preferential mode of spread.

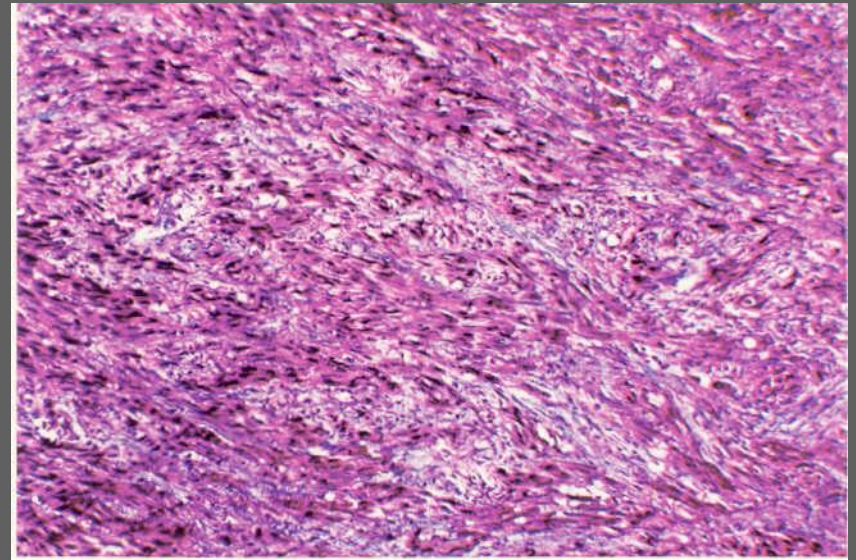
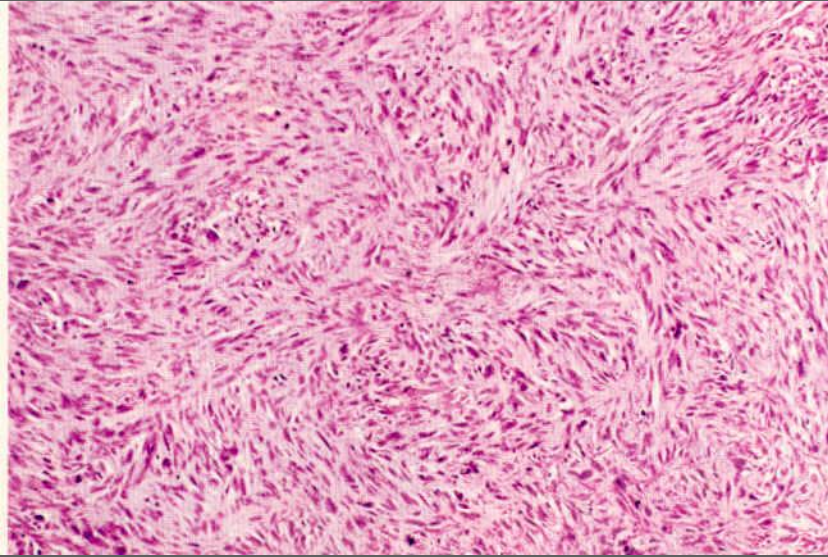
Carcinoma vs. Sarcoma

- Spread preferentially by lymphatics.
- Radiosensitivity - most often highly radiosensitive.
- Less radiosensitive.

Sarcomas

- Mostly spindle celled tumors
 - Leiomyosarcoma
 - Fibrosarcoma
 - Neurofibrosarcoma / Malignant peripheral nerve sheath tumour
 - Malignant fibrous histiocyoma.

Leiomyosarcoma



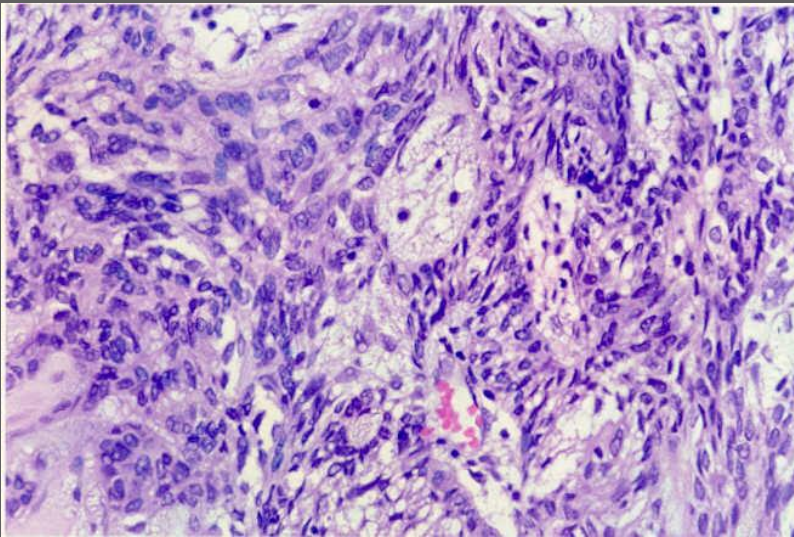
Sarcomas

- May have epithelioid areas.
 - Leiomyosarcoma
 - MPNST
 - Malignant fibrous histiocyoma
 - Synovial sarcoma
 - Chondrosarcoma
 - Angiosarcoma

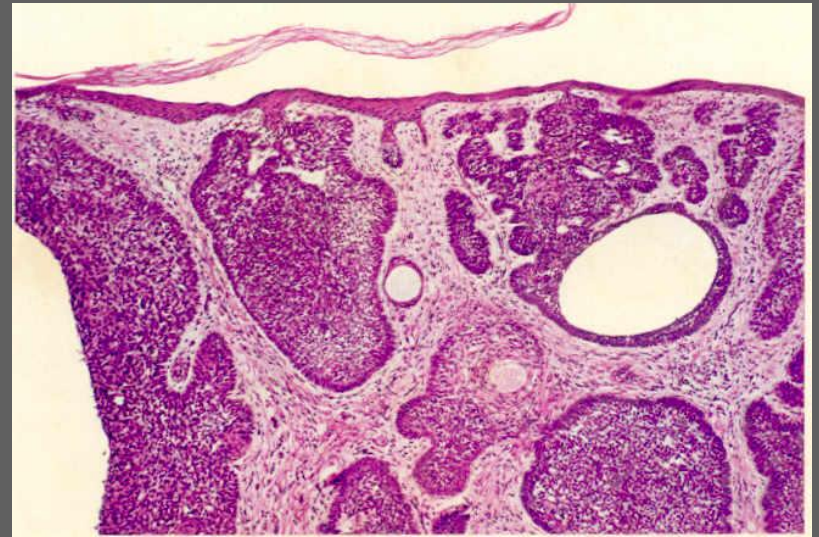
Sarcomas

- May be biphasic
 - Synovial sarcoma

Locally malignant tumors



Ameloblastoma



Basal cell carcinoma

Childhood tumors - Blastomas

- Nephroblastomas
- Hepatoblastoma
- Medulloblastoma
- Neuroblastoma
- Neuroblastoma