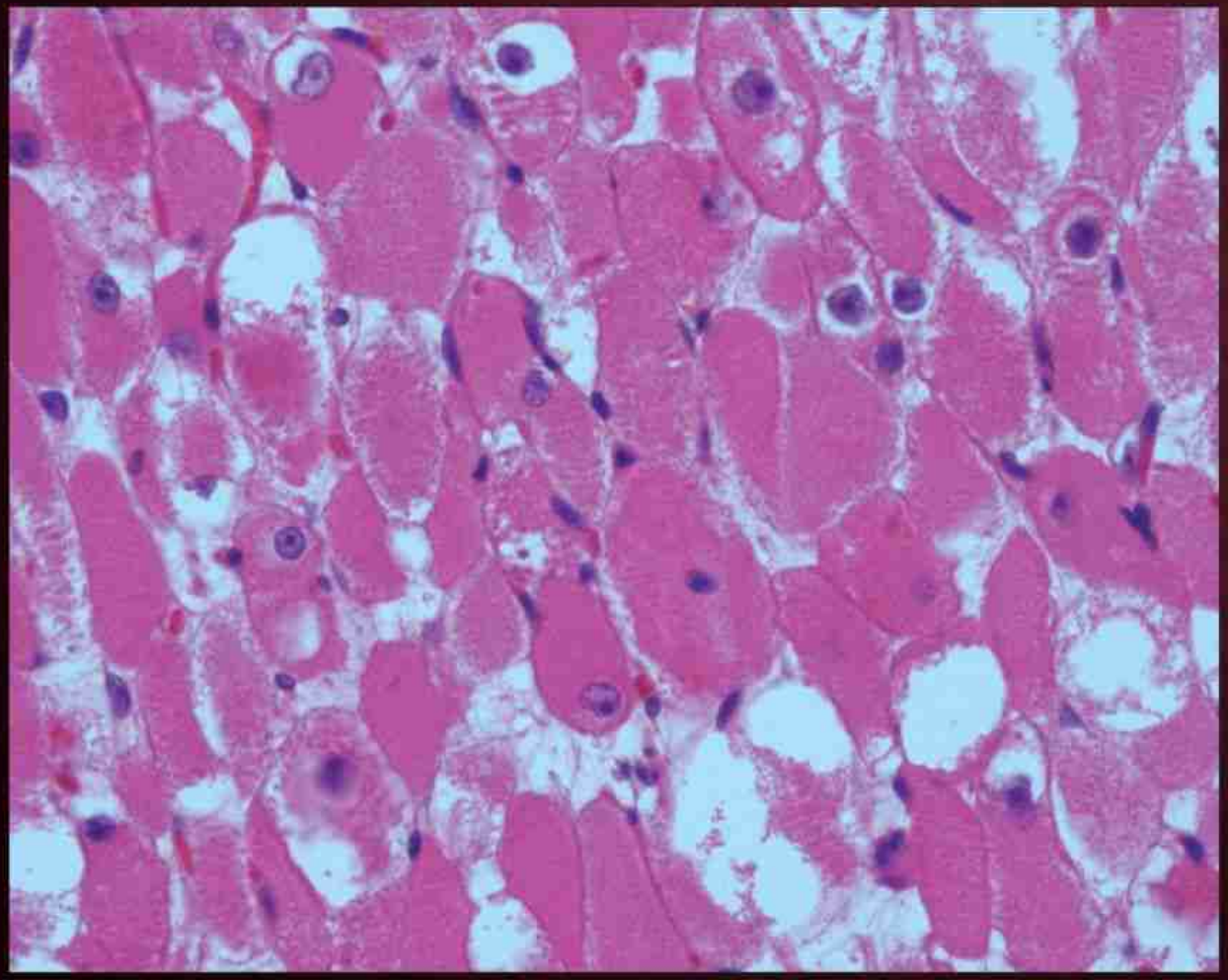
SKELETAL MUSCLE TUMOURS

- Benign: Rhabdomyoma
- Malignant: Rhabdomyosarcoma

RHABDOMYOMA

- Rare tumour
- Benign tumour of skeletal muscle
- Site: Head & neck
  - Upper neck
  - Tongue
  - Larynx
  - Pharynx
- The tumour is divided into adult and foetal types, depending upon the degree of resemblance of tumour cells to normal muscle cells.



HISTOLOGY

Large, round to oval cells, having abundant, granular, eosinophilic cytoplasm which is frequently vacuolated and contains glycogen.

RHABDOMYOSARCOMA

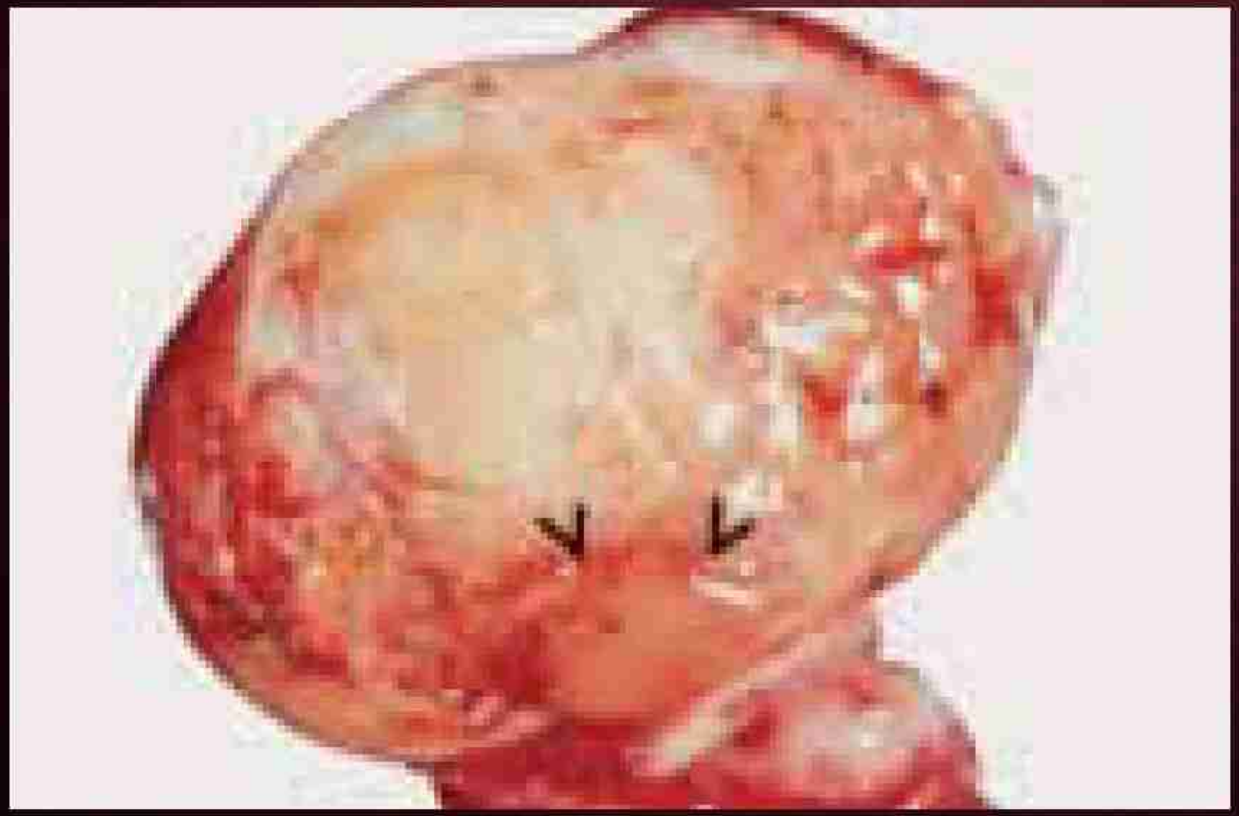
- **Malignant mesenchymal tumour with skeletal muscle differentiation.**

- Three subtypes
- Embryonal (60%)
- Alveolar (20%)
- Pleomorphic (20%)

EMBRYONAL RHABDOMYOSARCOMA

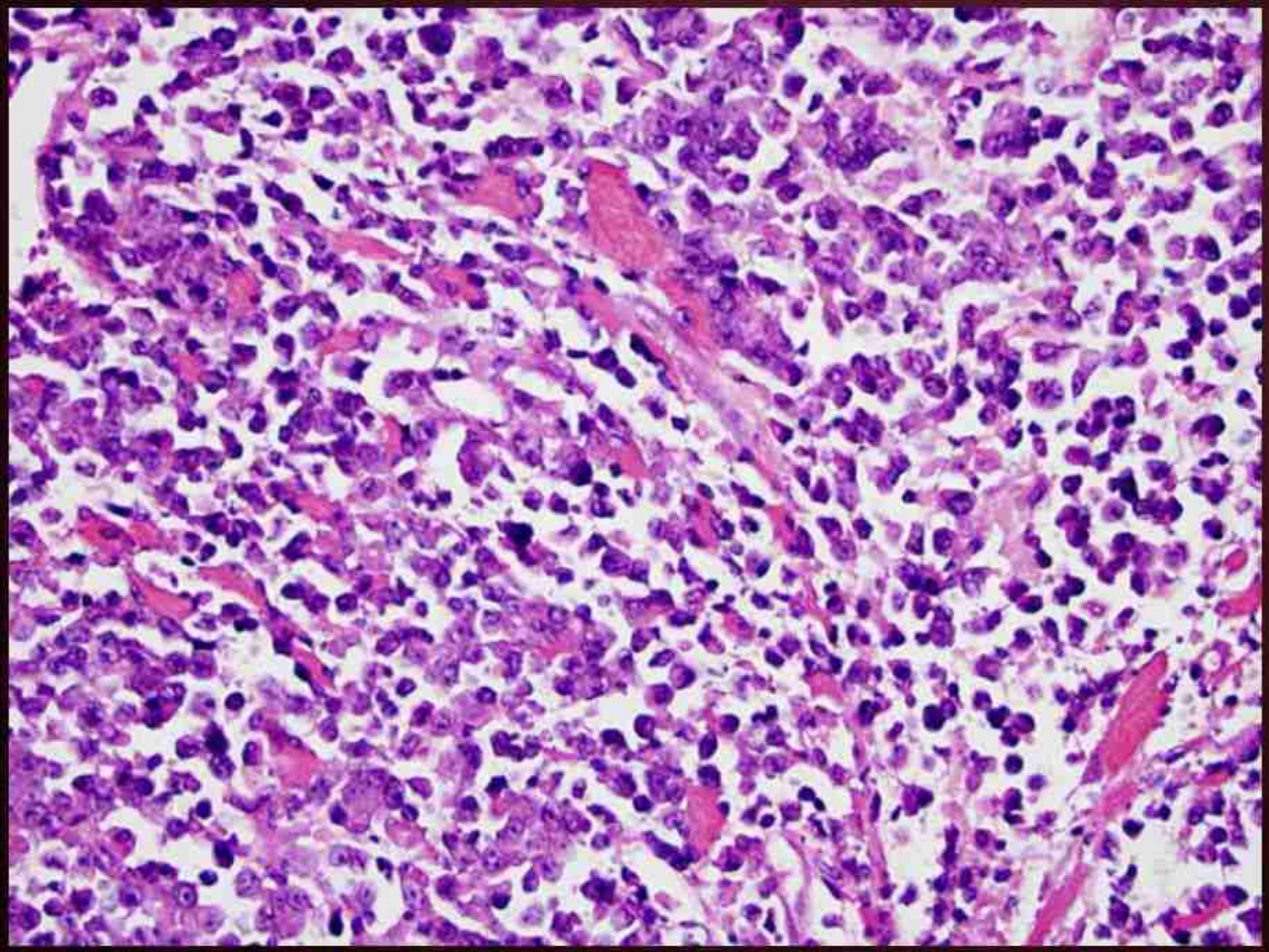
- The most common subtype
- **Age group:** children <15 years of age
- **Sites of involvement:** Head and neck
  Genitourinary system

EMBRYONAL RHABDOMYOSARCOMA



GROSS

- Fleshy,
- pale tan mass
- compression of the adjacent tissue



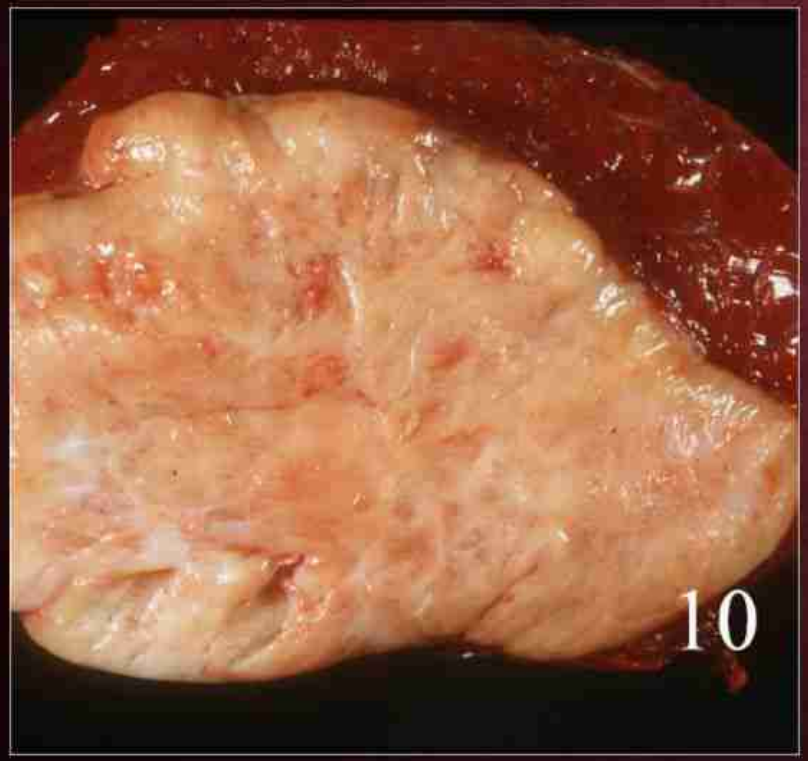
MICROSCOPY

Mixture of small, round to oval cells and spindle shaped strap cells having tapering bipolar cytoplasmic processes in which cross-striations may be evident.

ALVEOLAR RHABDOMYOSARCOMA

- Age group: Adolescents and young adults
- Site: Extremities

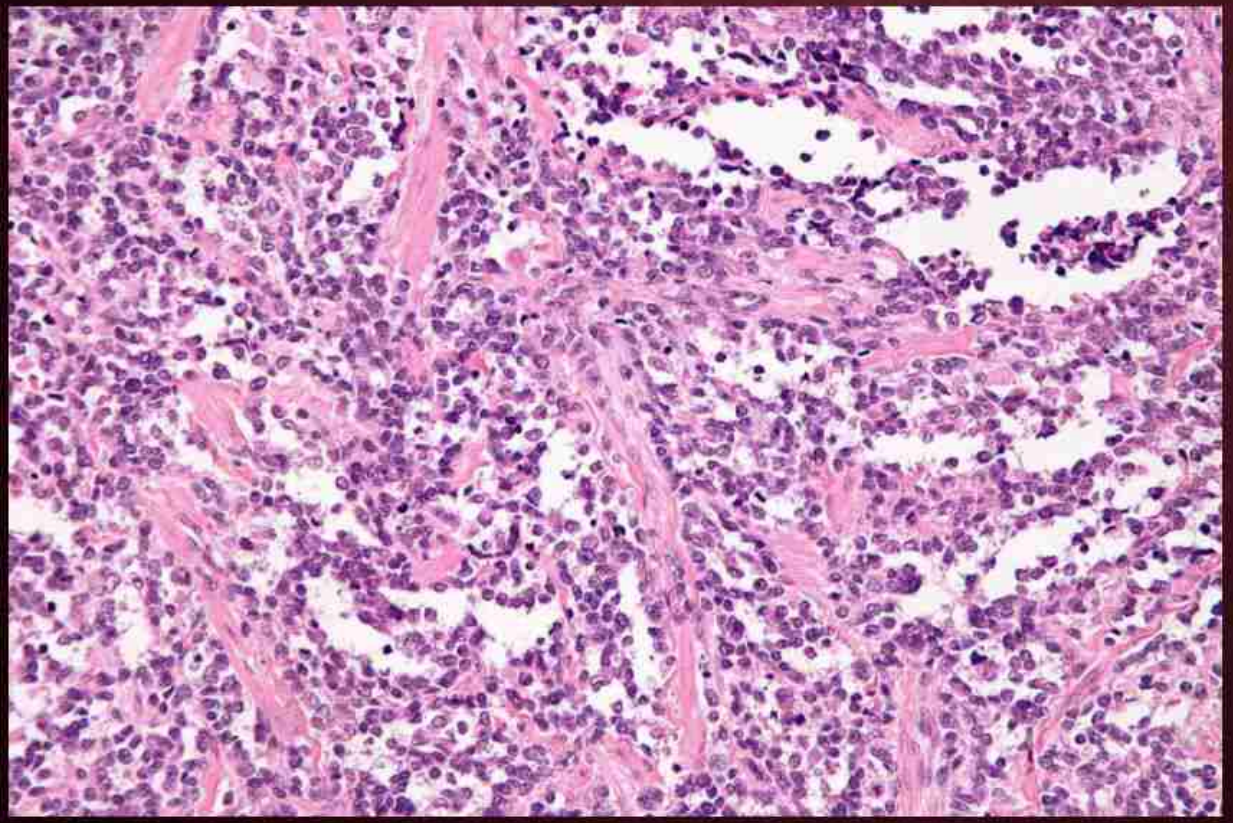
ALVEOLAR RHABDOMYOSARCOMA



GROSS

- Arises directly from skeletal muscle and grows rapidly as soft and gelatinous mass.

ALVEOLAR RHABDOMYOSARCOMA



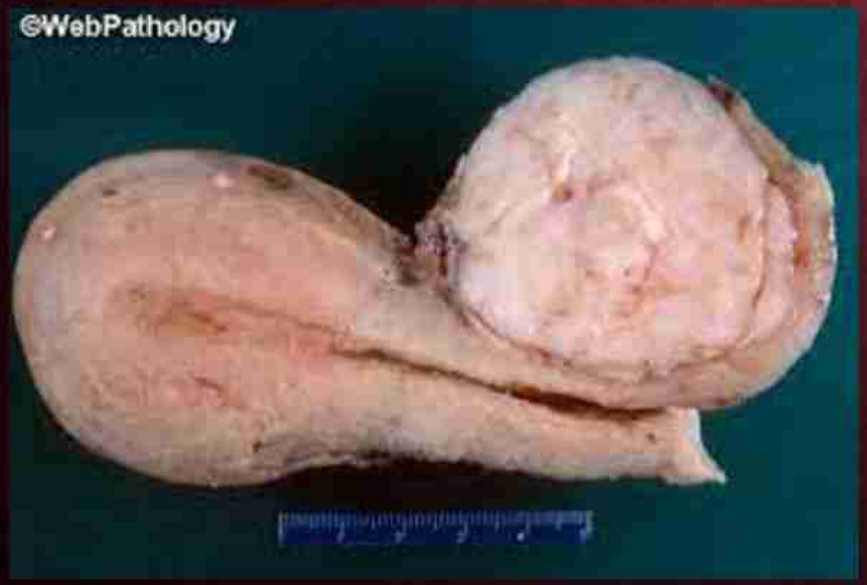
HISTOLOGY

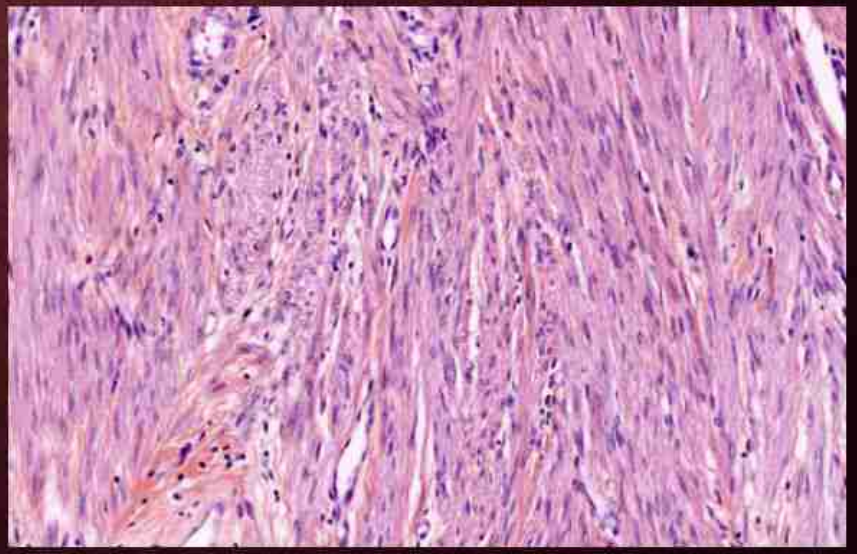
- The tumour shows characteristic alveolar pattern resembling pulmonary alveolar spaces.
- These spaces are formed by fine fibrocollagenous septa.
- The tumour cells lying in these spaces and lining the fibrous trabeculae are generally small, lymphocyte-like with frequent mitoses and some multinucleate tumour giant cells.

SMOOTH MUSCLE TUMOURS

- Benign: Leiomyoma
- Malignant: Leiomyosarcoma

LEIOMYOMA





VASCULAR TUMOURS

- Benign: Haemangioma
- Borderline tumour: Kaposi sarcoma
- Malignant: Angiosarcoma

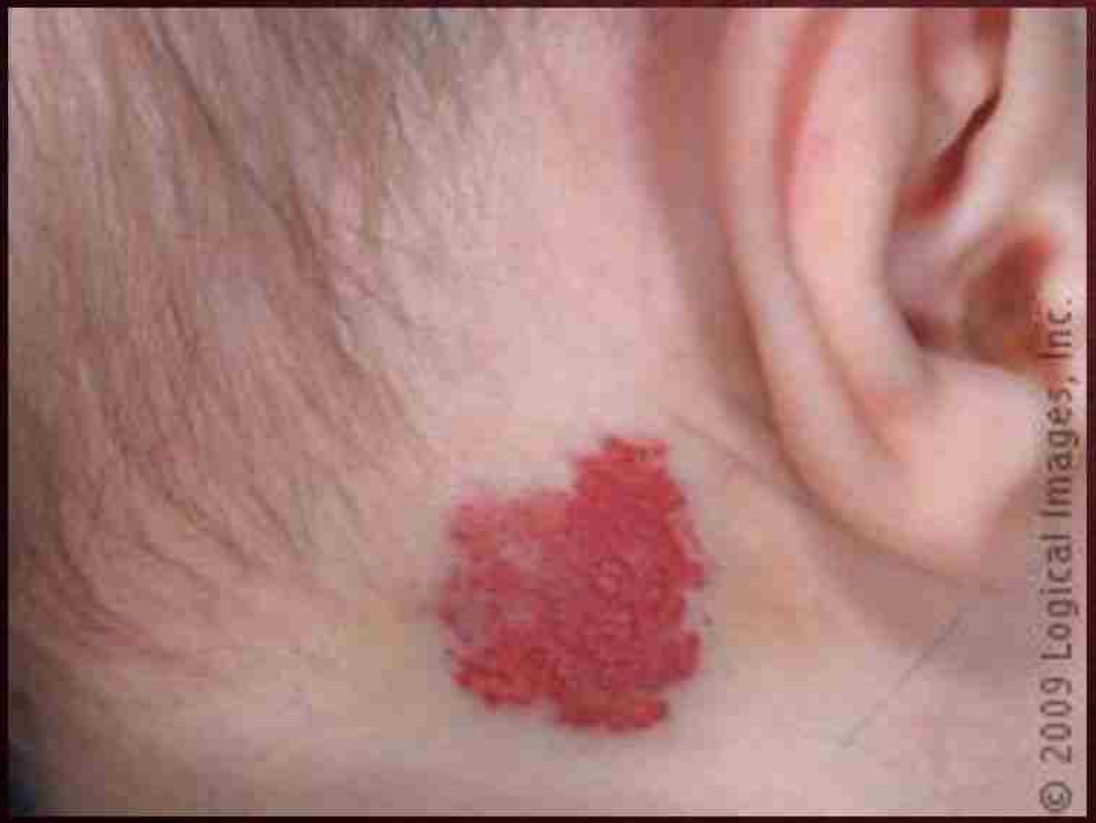
HEMANGIOMA

- Capillary haemangioma
- Cavernous haemangioma

CAPILLARY HAEMANGIOMA

- The most common type of haemangioma
- Site: Skin
  - Subcutaneous tissues
  - Mucous membranes of the oral cavities and lips
  - Liver
  - Spleen
  - Kidneys
- They may be present at birth or appear in early childhood

CAPILLARY HAEMANGIOMA



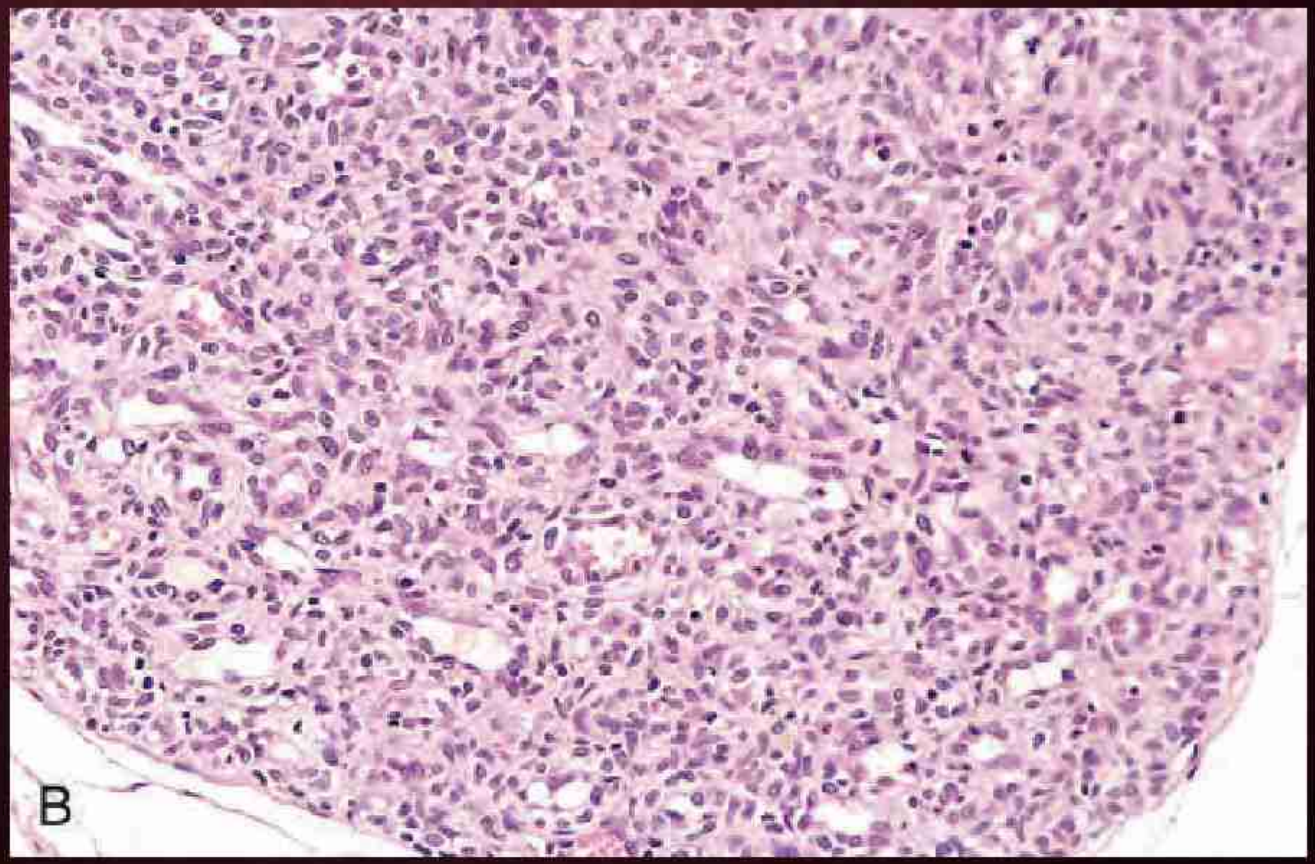
CLINICALLY

- Small or large
- Flat or slightly elevated
- Red to purple
- Soft
- Lobulated lesions
- Few millimeters to a few centimeters in diameter

CAPILLARY HAEMANGIOMA

HISTOLOGY

- Well-defined
- Unencapsulated lobules.
- Lobules are composed of capillary-sized, thin-walled, blood-filled vessels.
- Vessels are lined by single layer of plump endothelial cells surrounded by a layer of pericytes.
- The vessels are separated by some connective tissue stroma



BEHAVIOUR

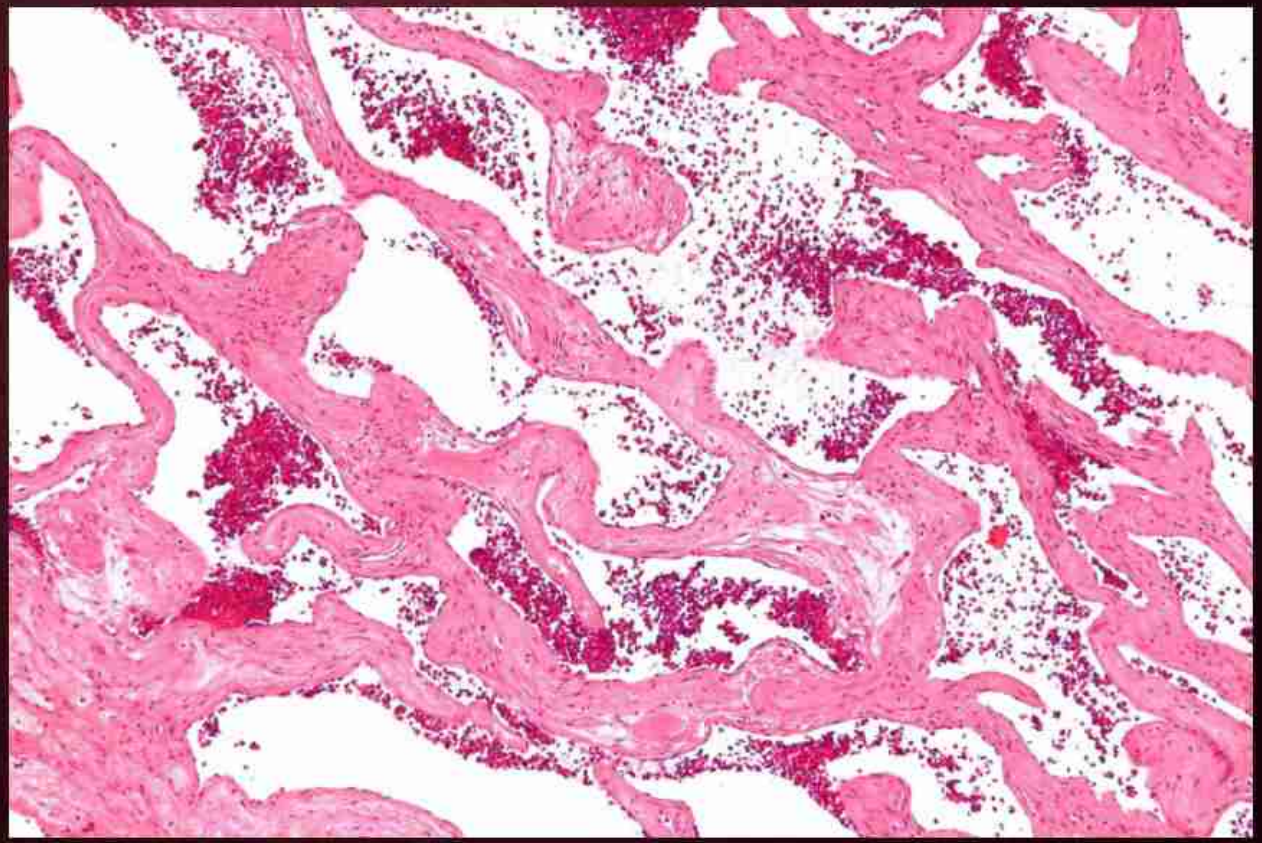
- Regress spontaneously with in few years

CAVERNOUS HAEMANGIOMA

- Single or multiple, discrete or diffuse, red to blue, soft and spongy masses.
- They are often 1 to 2 cm in diameter
- More infiltrative,
- Frequently involve deep structures

CAVERNOUS HAEMANGIOMA

- Composed of thin-walled cavernous vascular spaces, filled partly or completely with blood.
- The vascular spaces are lined by flattened endothelial cells.
- They are separated by scanty connective tissue stroma



BEHAVIOUR

- Do not regress spontaneously

KAPOSI SARCOMA

- Vascular neoplasm caused by human herpesvirus 8 (HHV8)
- Associated with acquired immunodeficiency syndrome (AIDS)
- Four forms

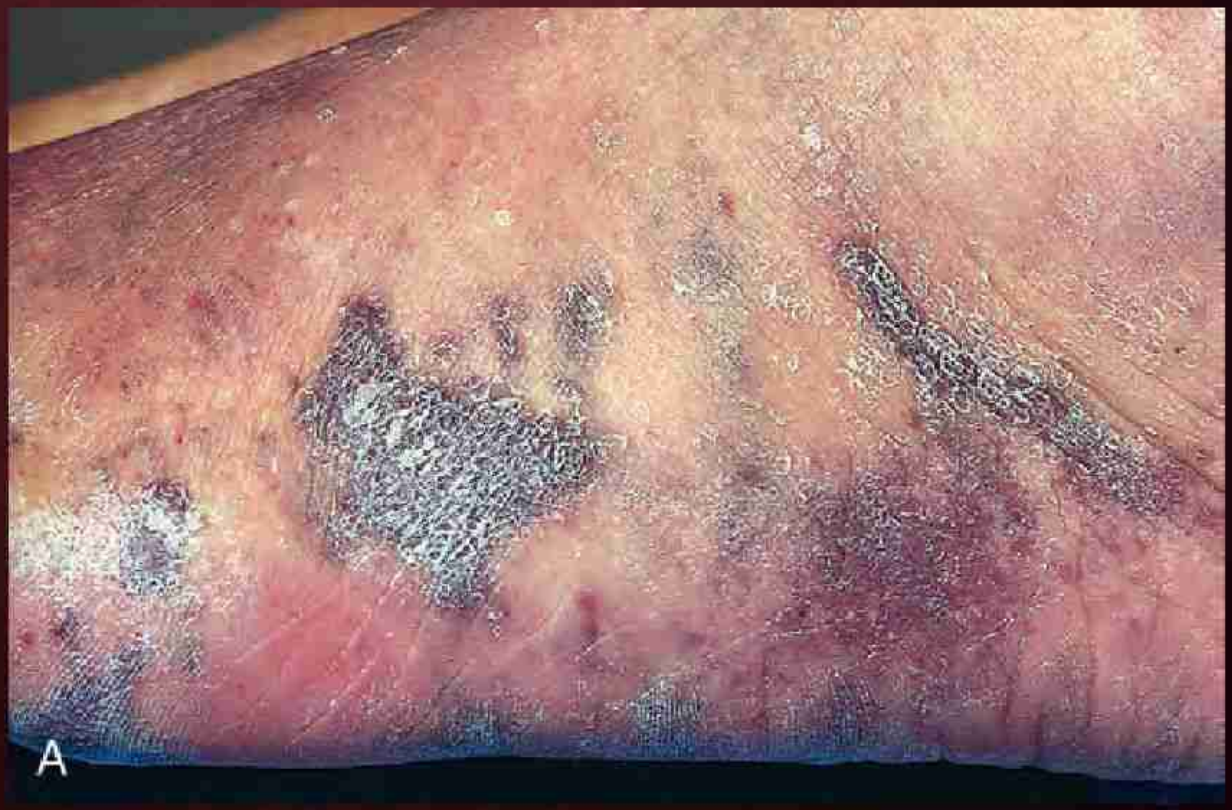
FOUR FORMS

- Classic KS
- Endemic African KS
- Transplant-associated KS
- AIDS-associated (epidemic) KS

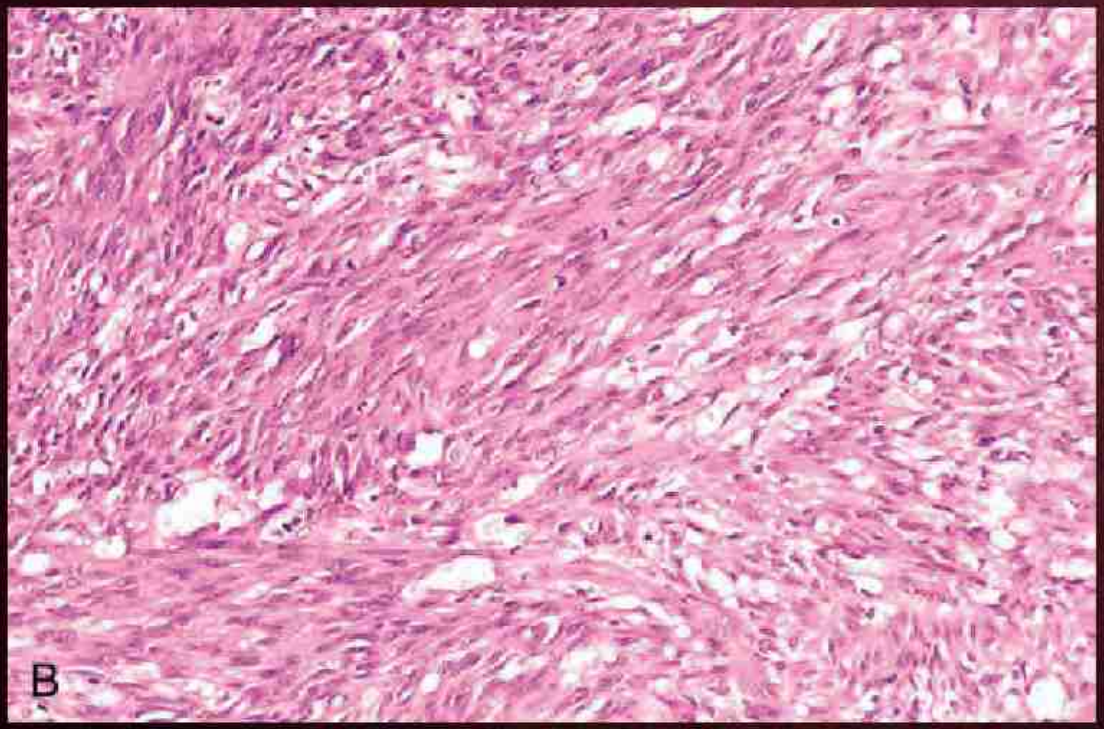
MORPHOLOGY

THREE STAGES

- **Patches**
- **Raised plaques**
- **Nodular**



KAPOSI SARCOMA



MICROSCOPY

- sheets of plump, proliferating spindle cells, mostly in the dermis or subcutaneous tissues
- Slit like vascular spaces
- Chronic inflammatory cells

PROGNOSIS & TREATMENT

- Classic KS restricted to the surface of the body, surgical resection is usually adequate for an excellent prognosis.
- Radiation - multiple lesions in a restricted area
- Chemotherapy - disseminated disease, including nodal involvement.
- In immunosuppression-associated KS - withdrawal of immunosuppression
- Antiretroviral therapy treatment has greatly decreased that frequency of KS in HIV infected patients

NERVE SHEATH TUMOURS

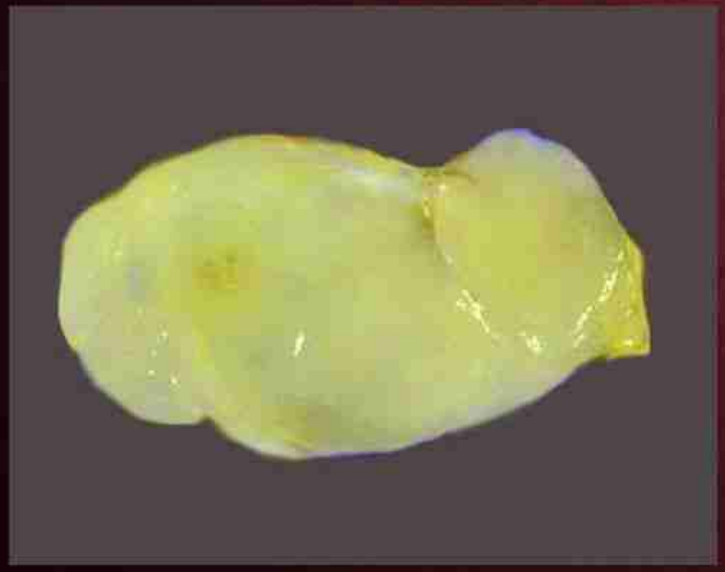
- Benign: Schwannoma
  Neurofibroma

- Malignant: Malignant peripheral nerve sheath tumour

SCHWANNOMA

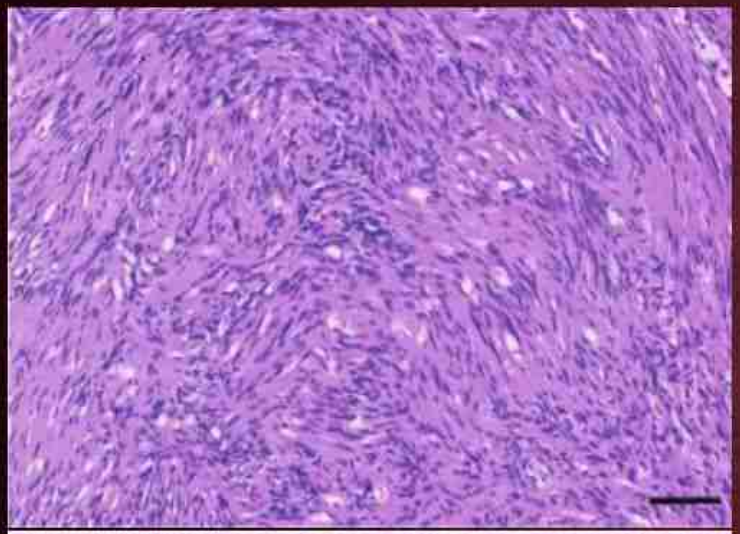
- Benign nerve sheath tumor arising from differentiated Schwann cells
- upper limbs, followed by the head and neck area, including the oral cavity, orbit and salivary glands, deeply seated tumors are mainly in the posterior mediastinum and retroperitoneum
- 20 - 50 years old
- M = F

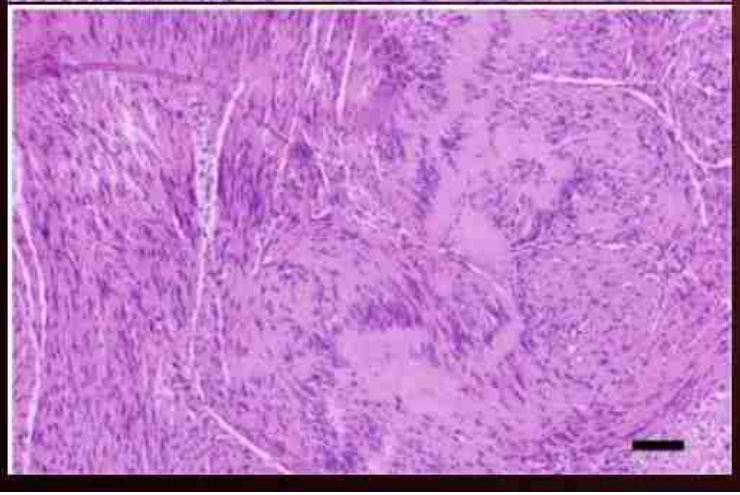
GROSS AND MICROSCOPY



Solitary
Cut section is light tan and glistening and may show yellow patches

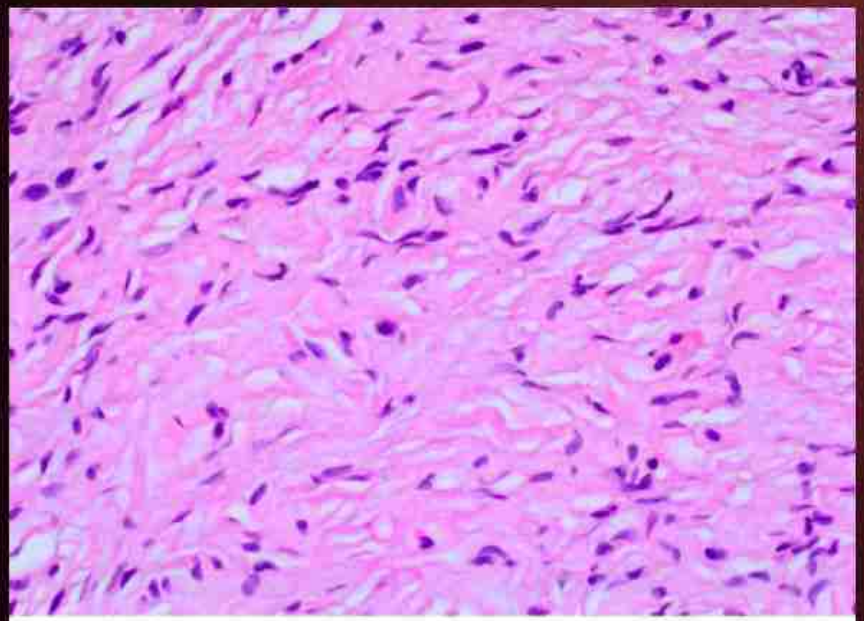
Dumbbell tumor: in posterior mediastinum, originates from or extends into vertebral canal





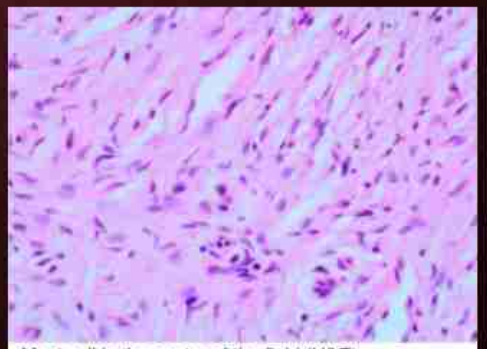
- Biphasic: compact hypercellular Antoni A areas and myxoid hypocellular Antoni B areas (may be absent in small tumors)
- Nuclear palisading around fibrillary process (Verocay bodies) is often seen in cellular areas
- Large, irregularly spaced vessels are most prominent in Antoni B areas
- Cells are narrow, elongated and wavy with tapered ends interspersed with collagen fibers
- Tumor cells have ill defined cytoplasm, dense chromatin

NEUROFIBROMA



Skin nodule from the leg showing a hypocellular proliferation of bland serpentine spindle cells and shredded carrot collagen.

- Schwann cells with wire-like collagen fibrils (wavy serpentine nuclei and pointed ends)
- mast cells
- No Verocay bodies



Mast cell in the center of the field (H&E).

TUMOURS OF UNCERTAIN HISTIOTYPE

- Benign: Solitary fibrous tumour
- Malignant: Synovial sarcoma
  - Undifferentiated pleomorphic sarcoma
  - Alveolar soft part sarcoma
  - Clear cell sarcoma