SOFT TISSUE TUMOURS

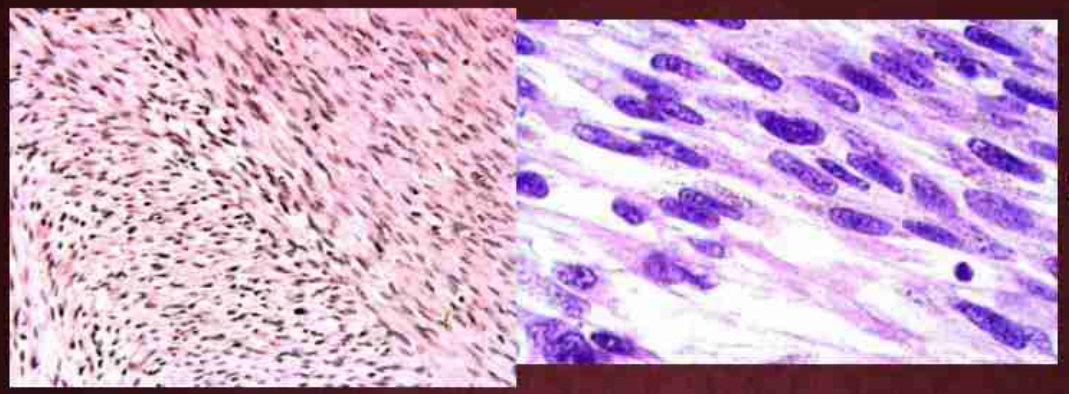
SOFT TISSUE

- Non-epithelial tissue
- Excluding - Skeleton
  Joints
  Central nervous system
  Hematopoietic and lymphoid tissues

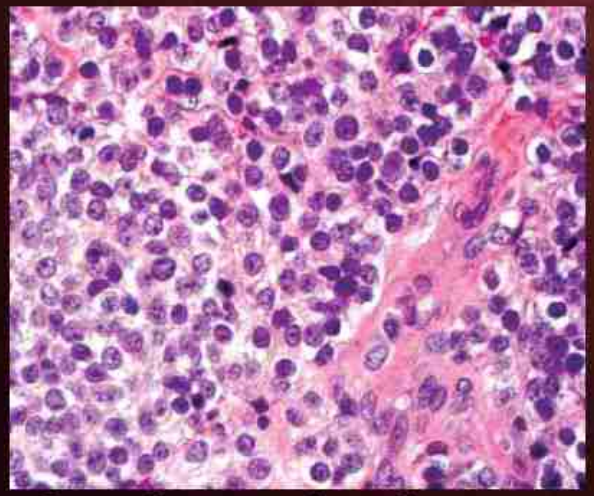
- Embryologically derived from mesoderm
- Mesenchymal proliferations that occur in the extra skeletal, non epithelial tissues of the body.
- Excluding the viscera, brain coverings & lymphoreticular system.
- Classified according to the tissue of origin – fibrous tissue, fat, muscle, blood vessels, nerves.
- Benign more common than malignant
- Malignant tumor - sarcoma

CELL MORPHOLOGY IN SOFT TISSUE TUMORS

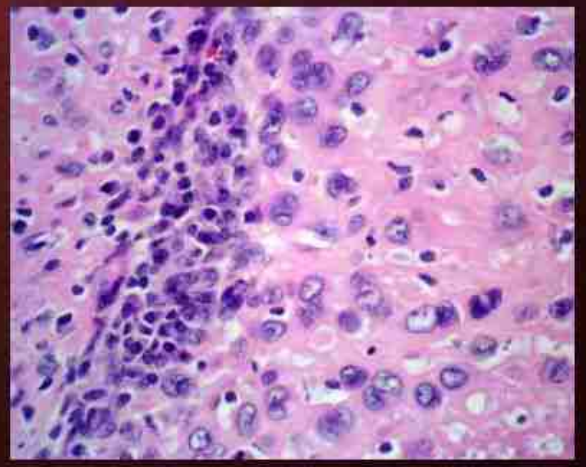
Cell type	Features	Tumor type
Spindle cell	Rod shaped, long axis twice the short axis	Fibrous, smooth muscle, nerve sheath
Small round cell	Size of lymphocyte	PNET, rhabdomyo-sarcoma
Epithelioid	Polyhedral with abundant cytoplasm, central nucleus	Epithelioid sarcoma, endothelial



Spindle cell



Small round cell



Epithelioid

CLASSIFICATION

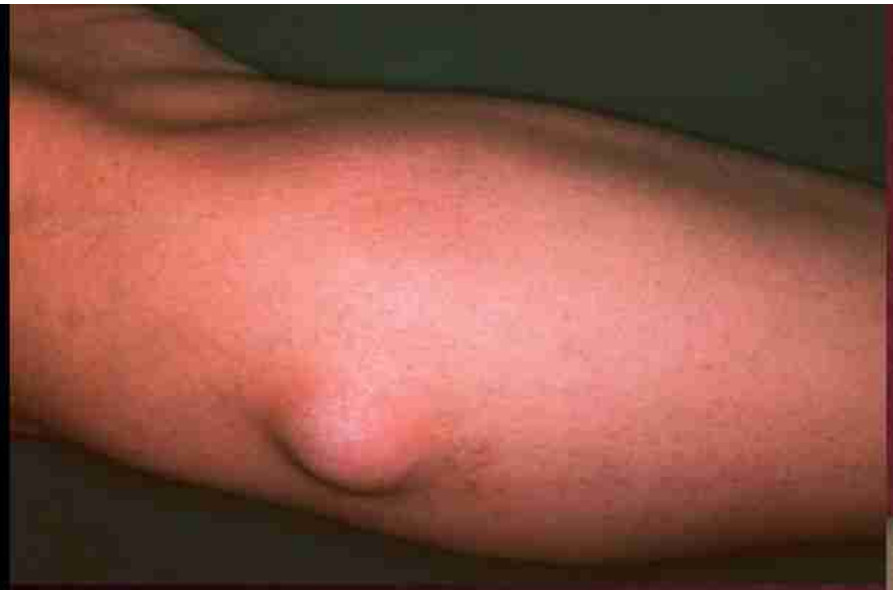
- Adipose tissue tumours
- Fibrous tissue tumours
- Skeletal muscle tumours
- Smooth muscle tumours
- Vascular tumours
- Nerve sheath tumours
- Tumours of uncertain histiotype

ADIPOSE TISSUE TUMOURS

- Benign: Lipoma
- Malignant: Liposarcoma

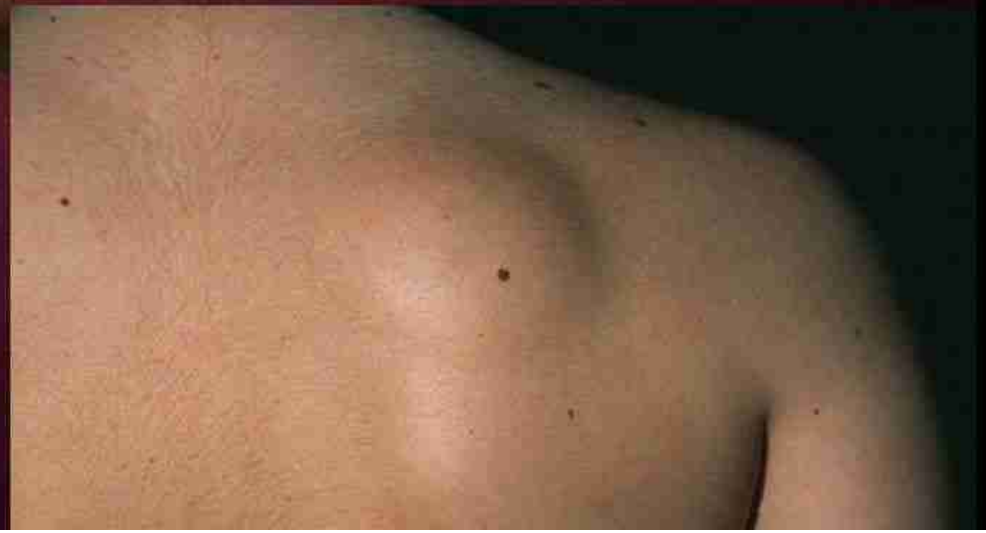
LIPOMA

- Commonest soft tissue tumour
- Benign tumour arising from mature adipocytes.

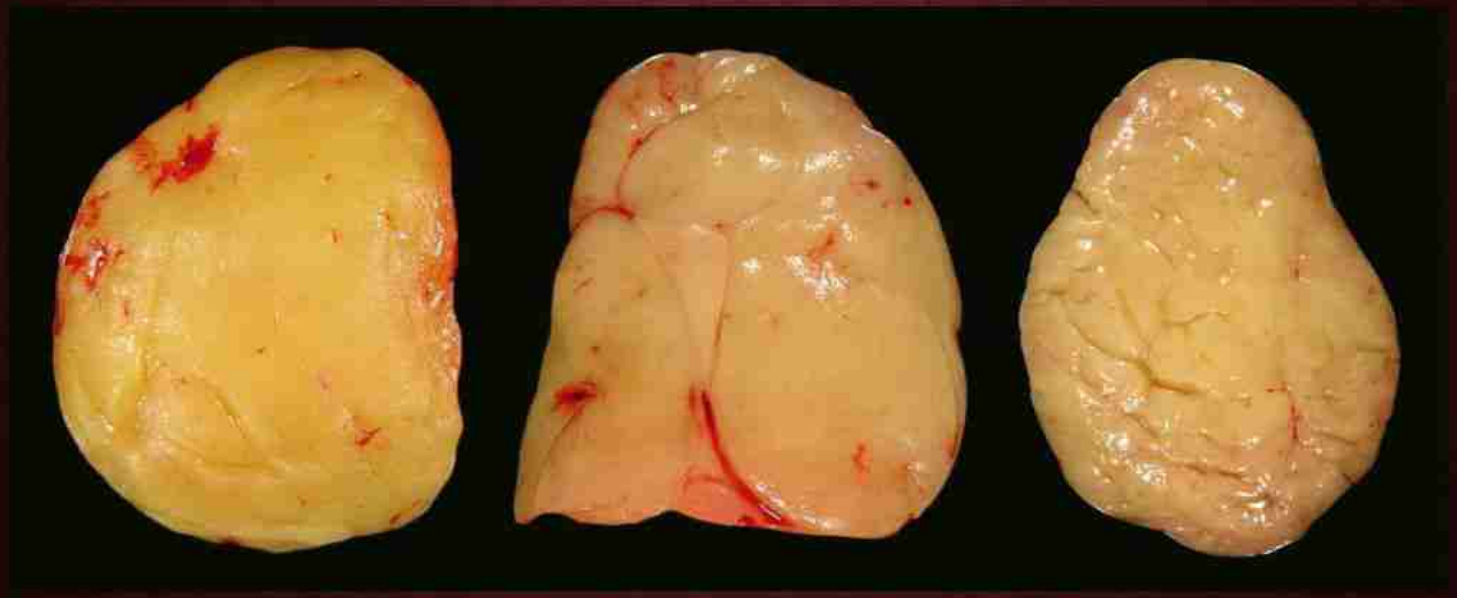


CLINICAL PRESENTATION
Soft
Mobile
Painless swelling

SITE
Subcutaneous
Proximal extremities
Trunk

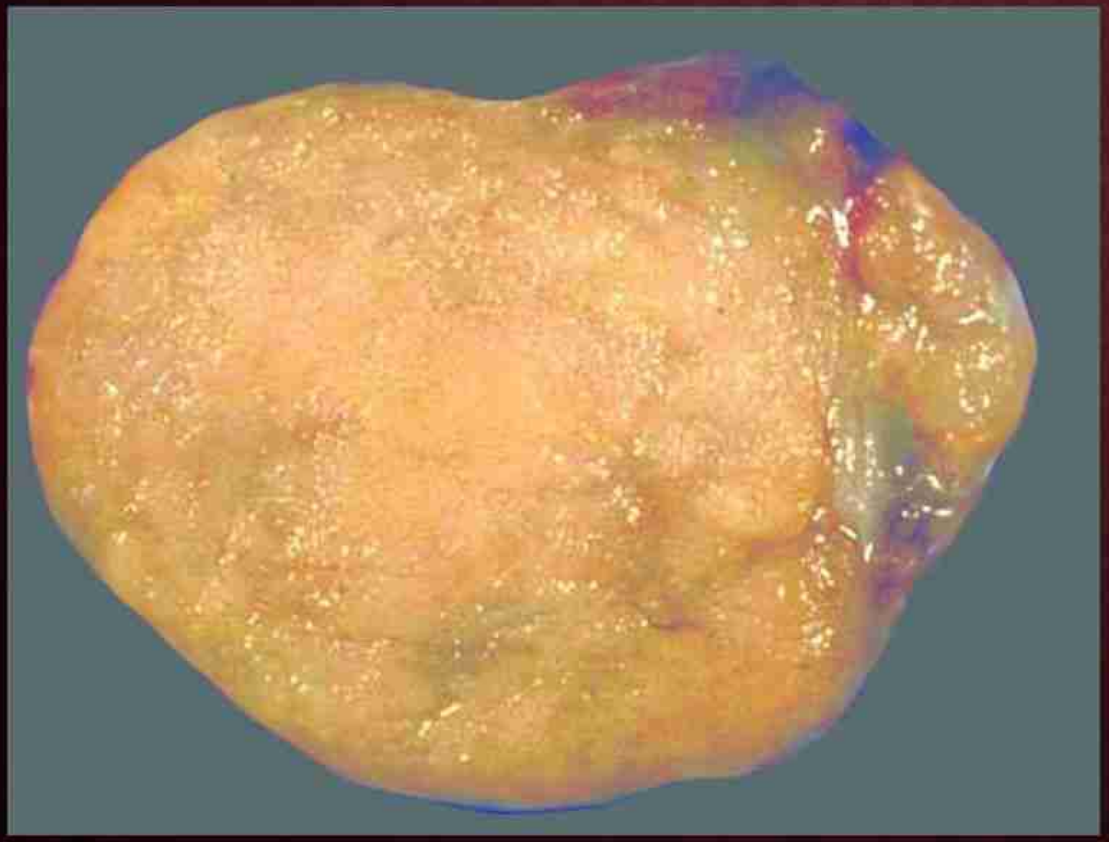


GROSS



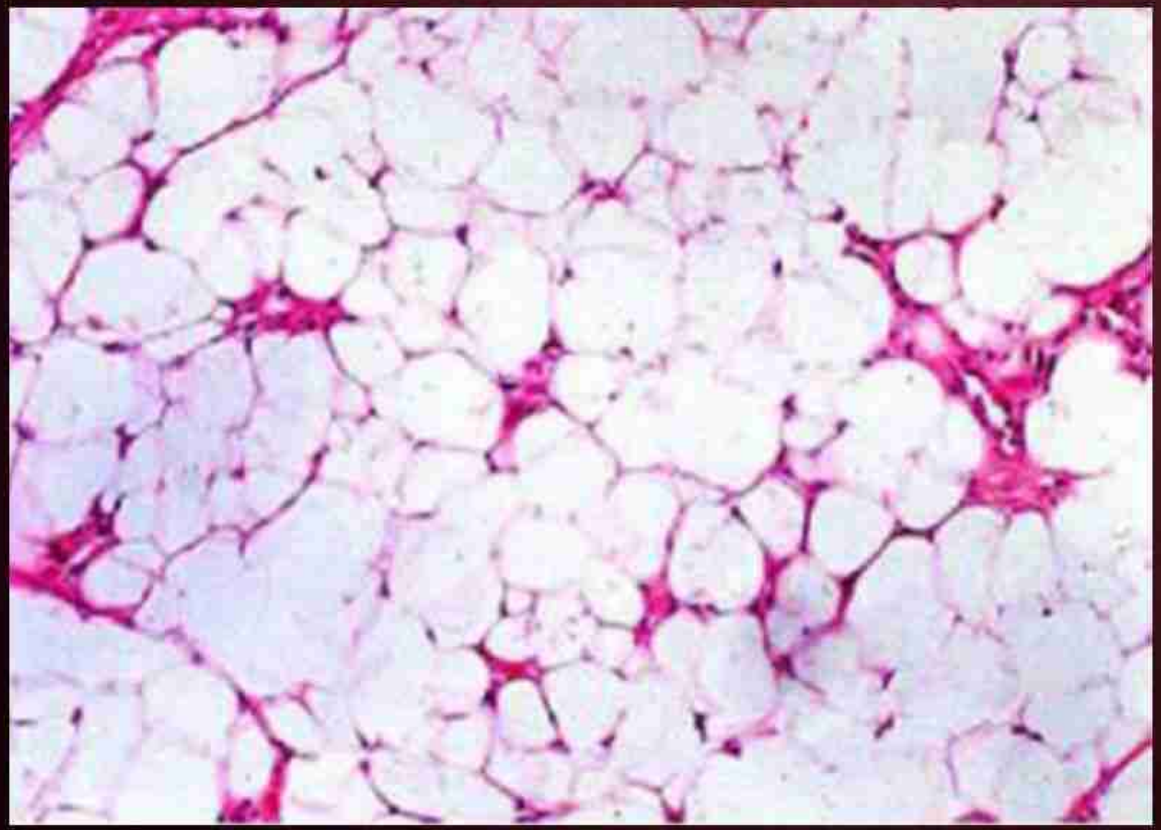
- Variably sized
- Round to oval
- Encapsulated masses

CUT SURFACE



- Soft
- Lobulated
- Yellowish
- Greasy

MICROSCOPY



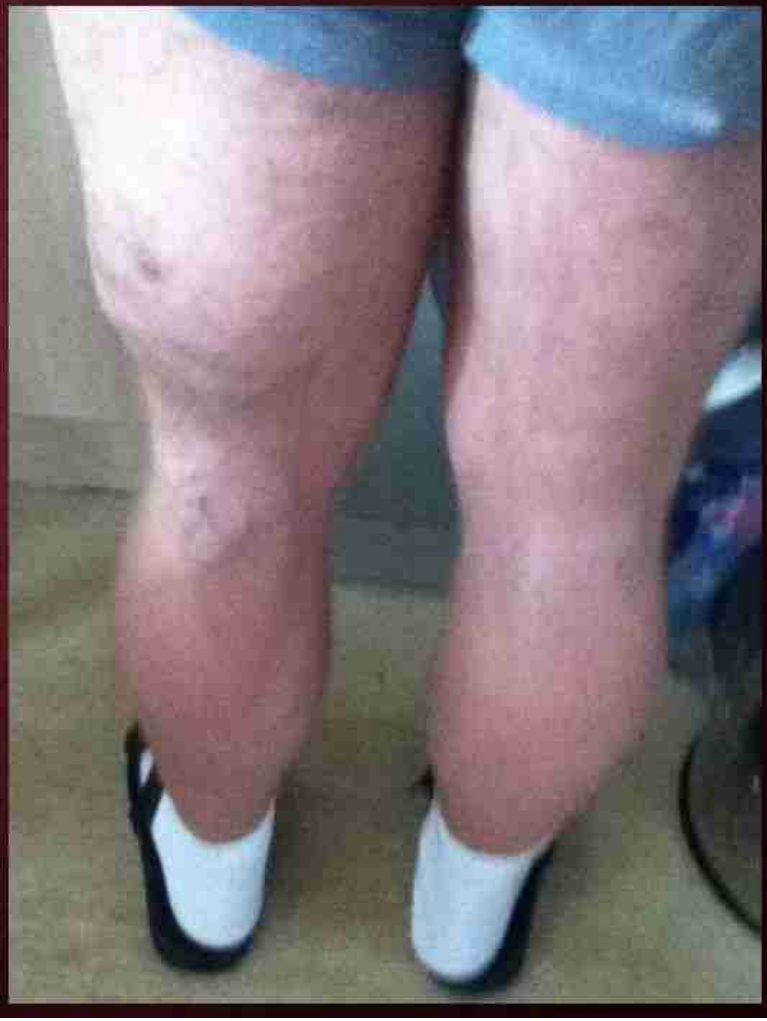
- Lobules of mature adipose tissue separated by delicate fibrous septae.
- Adipocytes are uniform, uni-vacuolated with compressed nuclei at the periphery.
- Small blood vessels are seen in the stroma

TREATMENT

- Simple Excision - Curative

LIPOSARCOMA

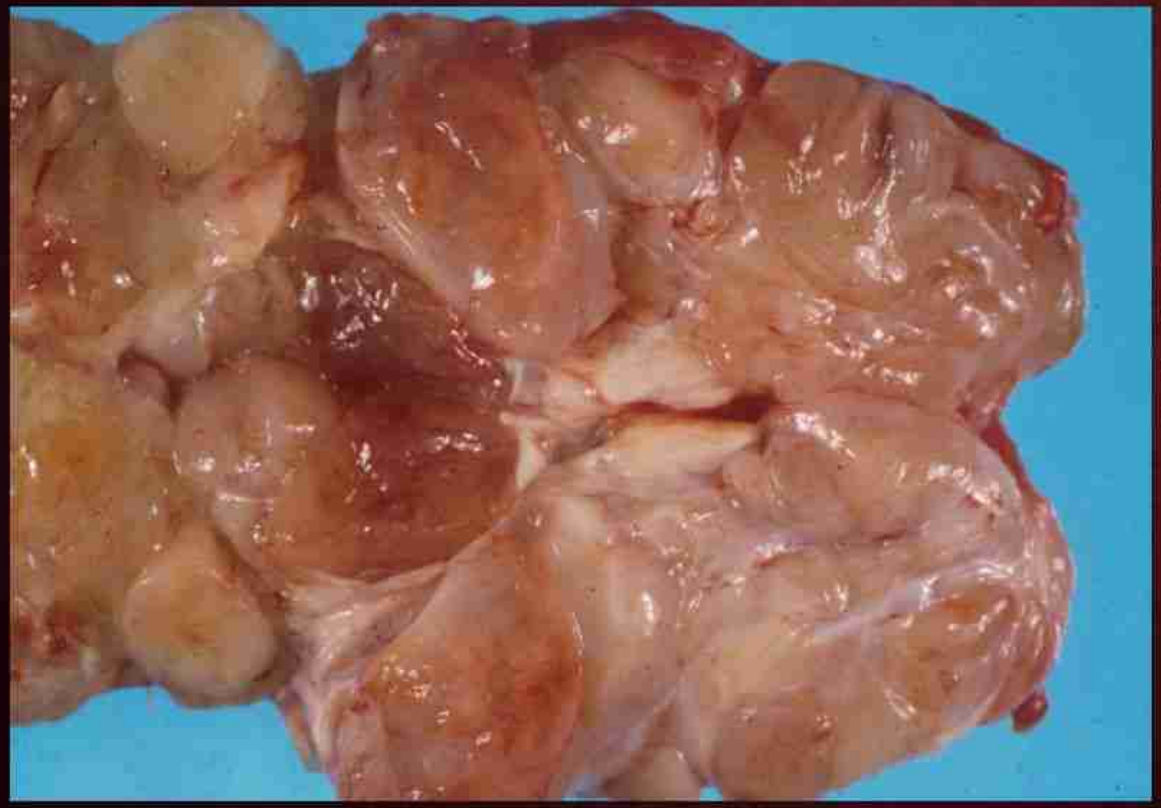
- Most common soft tissue sarcoma in adults
- Age group: 50s & 60s



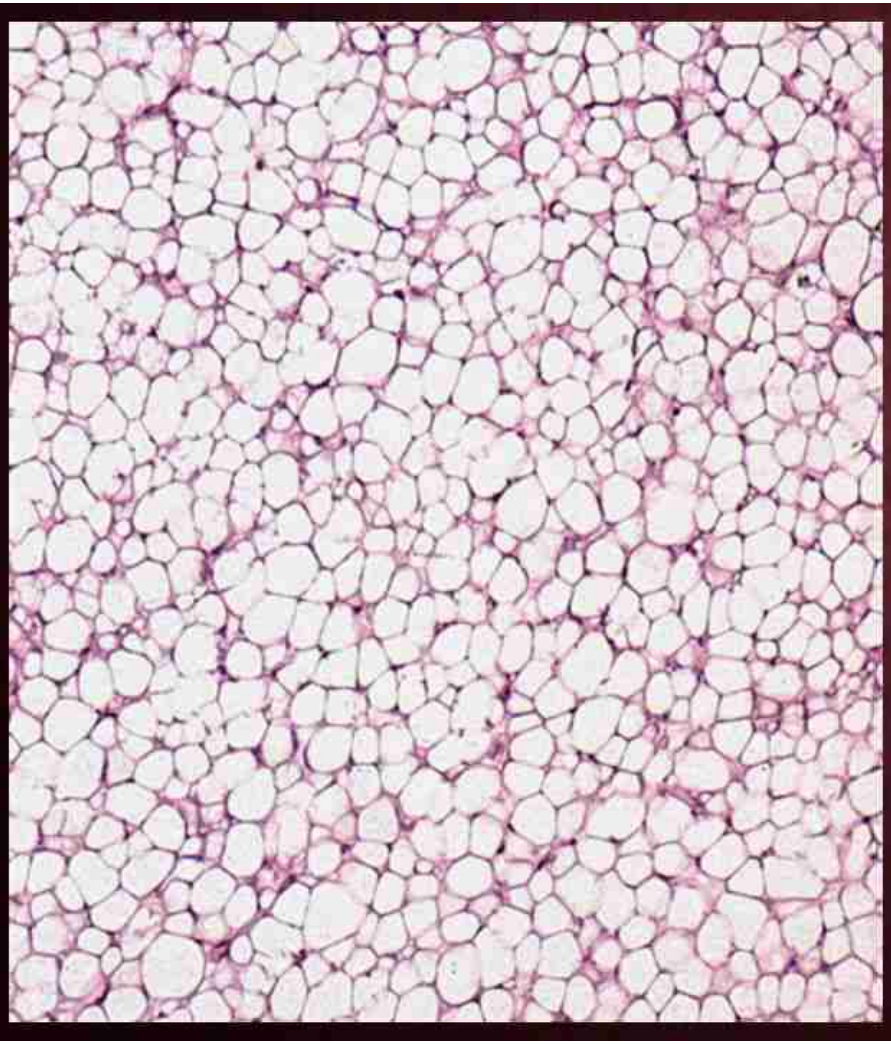
SITES

- Deeper
- Proximal extremities
- Retroperitoneum

GROSS

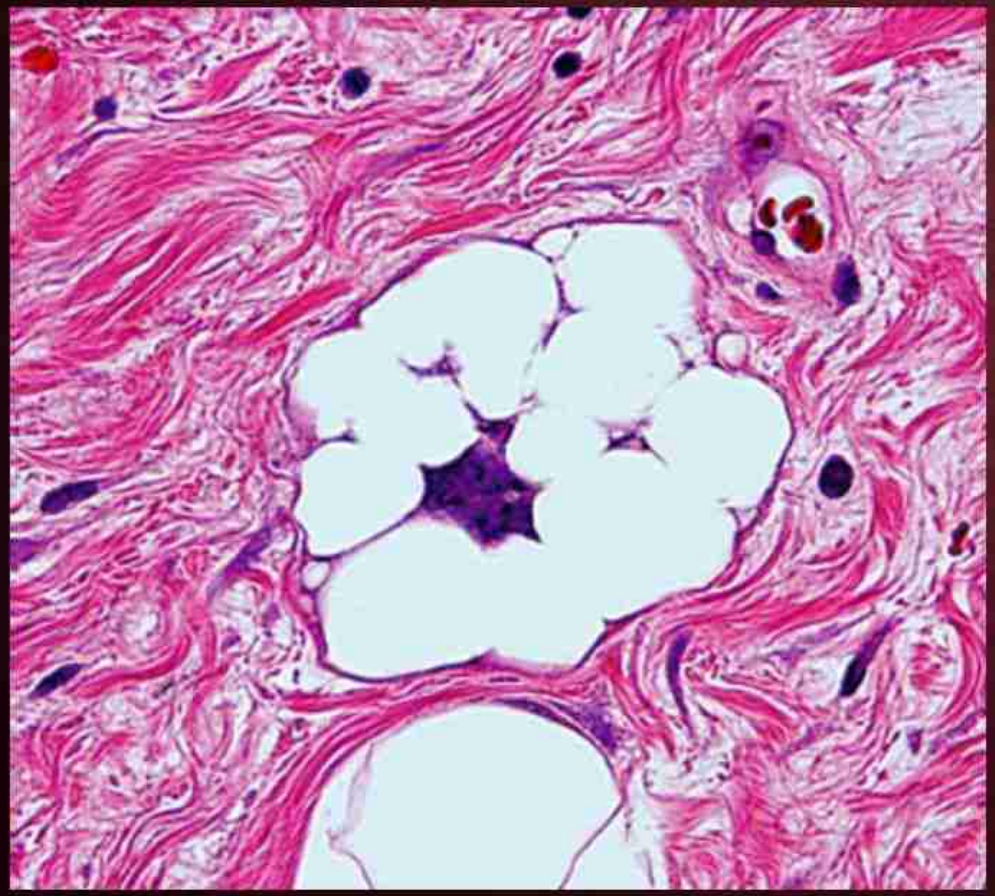


- Nodular mass
- >5 cm
- Circumscribed
- Infiltrative
- C/S: Grey white to yellow
  Myxoid & gelatinous



MICROSCOPY

- Variation in cell size
- Atypia of nucleus of adipocytes
- Hyperchromatic stromal cells within the fibrous septa
- Lipoblasts



LIPOBLAST

- Hyperchromatic indented or sharply scalloped nucleus.
- Fat droplets in the cytoplasm.

MORPHOLOGICAL SUBTYPES

- Well differentiated liposcarcoma
- Myxoid liposarcoma
- Pleomorphic liposarcoma.

PROGNOSIS

- Depends on the histological type
- Recur locally unless adequately excised

- Well-differentiated variant: indolent
- Myxoid: Intermediate
- Pleomorphic: Aggressive with frequent metastasis

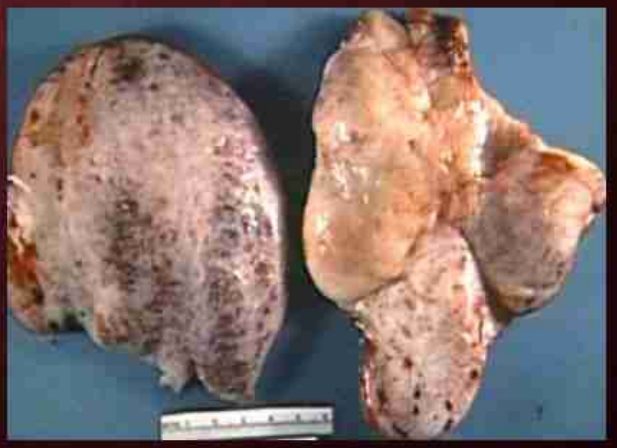
FIBROUS TISSUE TUMOURS

- Nodular fasciitis
- Fibromatoses

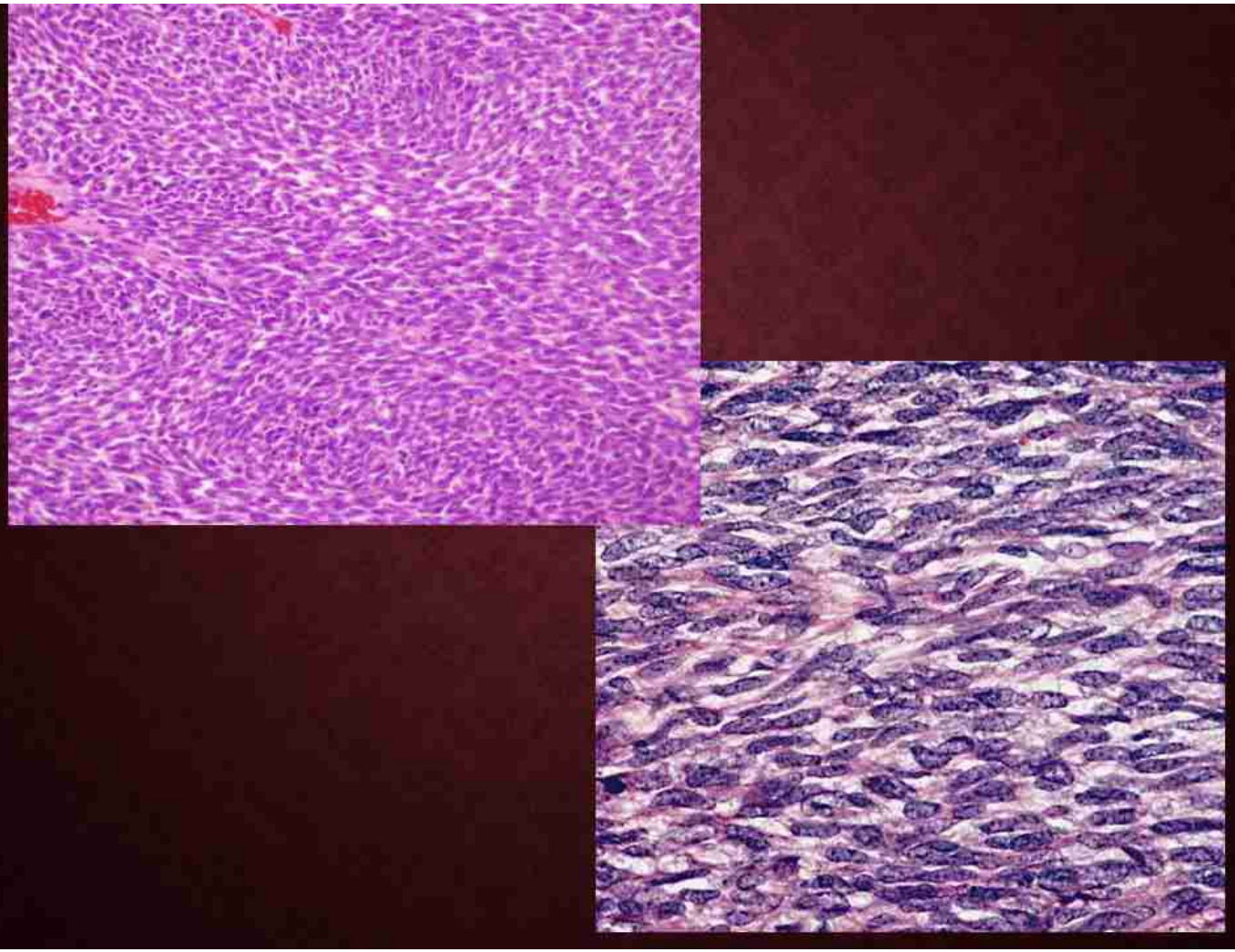
- Fibrosarcoma

FIBROSARCOMA

- Malignant neoplasm of fibroblasts
- Adults – deep tissues of thigh, knee, retroperitoneal area
- Slow growth
- Solitary, infiltrative



- Interlacing fascicles of fibroblasts – herring bone pattern
- Nuclear atypia, mitotic activity
- Recur, may metastasize to lungs.



MYOSITIS OSSIFICANS

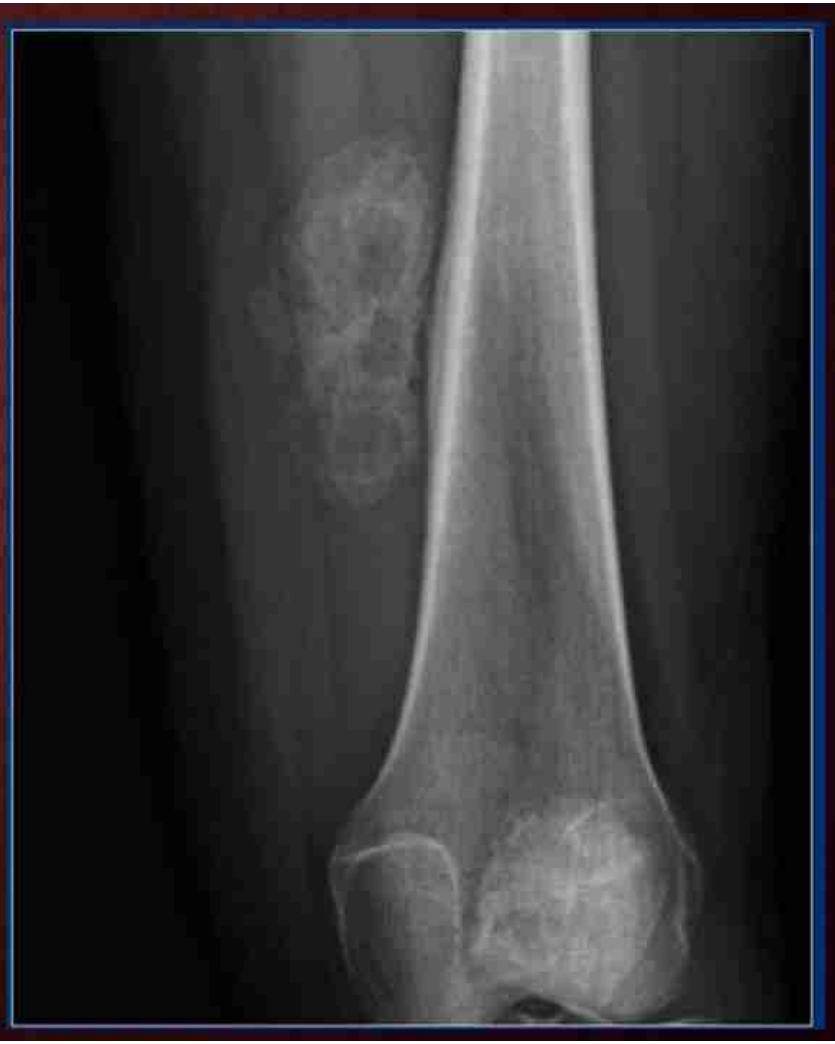
- Benign tumour-like lesion
- Characterised by osteoid and heterotopic bone formation in the soft tissues.

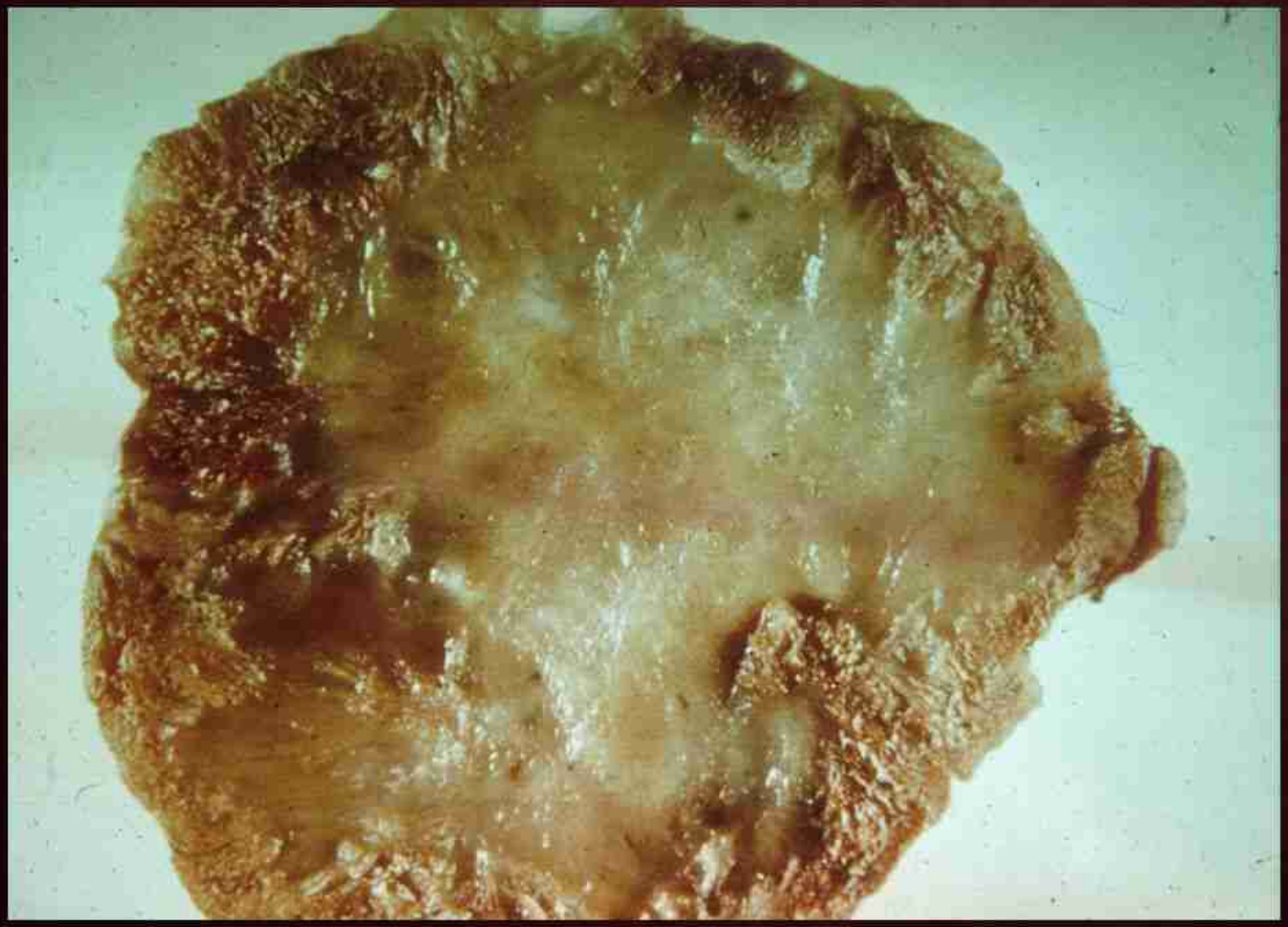
MYOSITIS OSSIFICANS

- Preceded by history of antecedent trauma to a skeletal muscle or its tendon.
- Followed by haemorrhage into the muscle.
- The patient generally complains of pain, tenderness and swelling.
- Richly vascularised granulation tissue replaces the affected muscle or tendon.
- Then follows development of osteoid and bone at the periphery.

X-RAY

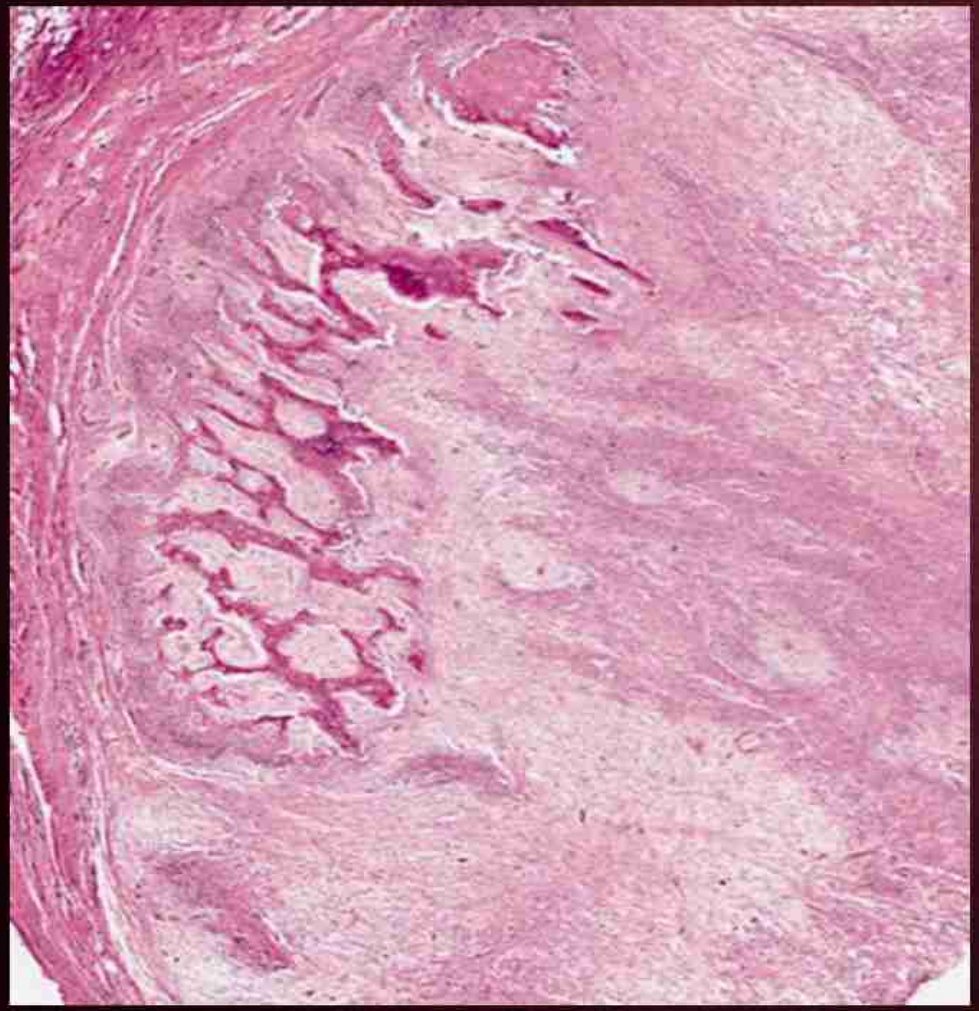
- Mineralized mass in the soft tissues.
- The mineralization is predominantly in the periphery of the mass
- A lucent zone between the mass and the cortical bone





GROSS

- Un-encapsulated
- Gritty mass
- Replacing the muscle.



HISTOLOGY

- Loosely arranged fibroblasts having high mitotic activity – Centre.
- Osteoid matrix and formation of woven mineralised bone – Periphery