
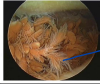
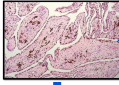


# Joint Tumor

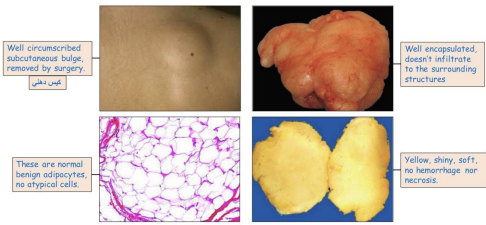
| Pathology   |  | Clinical  | Treatment        | Notes   |
|---|--|---|------------------|---|
| <b>Ganglion cyst</b><br> | The pathogenesis is unknown (benign)   | Close to joint, dorsum Of wrist   | Surgical Removal | No communication with synovial / not true cyst  |
| <b>True synovial cyst</b>   | Baker cyst around the knees and / it's cyst lined by synovial lining                                       | The herniation of synovial membrane, and it cuz pressure on nerve/vain lead to DVT in legs                  |                  | Benign  |
| <b>Tenosynovial giant cell tumor</b>  | Benign neoplasm of synovium<br>T(1;2)(p13q:37) affect collagen IV<br><i>Sign marker of genetic problem</i> | Diffuse (PVNS)=more dangerous /affects knee joint<br><br>Localized =less dangerous affect small hand tendon |                  | <br><i>(PVNS)</i><br><i>Finger Like Projections</i><br><i>proliferation of synovium into joint's lac Macrophage and GCs</i><br><br><i>Finger Like Projections and foamy cells in stroma</i> |

# Soft tissue Tumors

## ADIPOSE TISSUE TUMORS:

| LIPOMA (Benign)   | LIPOSARCOMA (Malignant)  |
|---|--|
| <ul style="list-style-type: none"> <li>Most common soft T tumor</li> <li>Well-encapsulated, subcutis</li> <li>Mature fat cells, Shiny yellow color</li> <li>Treatment: excision</li> <li>They are palpable, superficial, small.</li> <li>MDM2 tests are still carried out to make sure that the tumor is not malignant</li> </ul> | <ul style="list-style-type: none"> <li>Most common sarcomas in adults. &gt;50 years</li> <li>Most common locations: Extremities and retroperitoneum</li> <li>3 types: <ul style="list-style-type: none"> <li>Well Differentiated (MDM2 gene chr 12) difficult to diagnose bc. Histologically it looks like lipoma but when the tumor is located in the extremity or in the retroperitoneum more than 10-15cm in size, u have to do further analysis like MDM2 gene mutations which is specific for WD liposarcoma &amp; chr12</li> <li>Myxoid, t(12,16) easy to diagnose under LM</li> <li>Pleomorphic (aggressive) easy to diagnose under LM</li> </ul> </li> <li>Large, metastatic, fatal, deep</li> </ul> |

### LIPOMA PATHOLOGIC FEATURES:



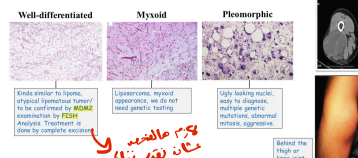
Well circumscribed subcutaneous nodule, removed by surgery  
*تحت الجلد*

Well encapsulated, doesn't infiltrate to the surrounding structures

These are normal benign adipocytes, no atypical cells

Yellow, shiny, soft, no hemorrhage nor necrosis

### LIPOSARCOMA FEATURES:



Well-differentiated      Myxoid      Pleomorphic

Extends anterior to lipoma, physical (genomic) tumor to be confirmed by MDM2, immunohistochemical to P53 Analysis. Treatment is done by complete excision

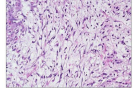
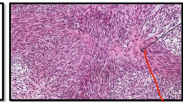
Liposarcoma, myxoid liposarcoma, we do not need genetic testing

Light looking nuclei, easy to diagnose, multiple centers, nucleoli, central mitotic, cellular, aggressive.



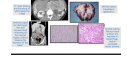
Behind the high grade

*بعض مالفنن في مكان غير متوقع*

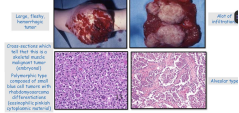
# Fibrous Tumor

|                          |   |   |                     |  |
|--------------------------|---|---|---------------------|--|
| <b>Nodular fasciitis</b> | Benign, thought to be reactive process/clonal t(17;22)        | Trauma and after periods have enlarged mass                       | Maybe self limiting | <b>NODULAR FASCIITIS:</b><br>   |
| <b>Fibromas</b>          | Benign profiling ion of fibroblast (skin,subcutaneous tissue) |   |                     |  |
| <b>Fibrosarcomas</b>     | Malignant (superficial cutaneous tumor)                       | Bigger and quickly discovered bec it superficial we can feel them |                     |  <p>A storiform, cartwheel or whorled pattern is a sign in histopathology which consist of spindle cells with elongated nuclei radiating from a center point.</p> <p>Fibrosarcoma</p> <p><i>بعض قطعه بالجلود والنشاني بالمرز زي اليبس</i></p> |

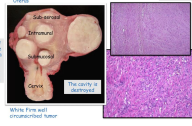
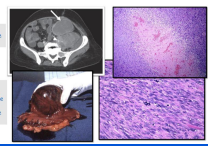
# Fibroblast Tumor

|   |   |   |   |   |
|---|---|---|---|---|
| <p><b>Superficial fibromatoses</b></p> <p>Infiltrative → lead to it's benign fibroblastic</p> <p>Run in family / May impact function affect organs</p>              | <p><b>PALMAR (DUPUYTREN CONTRACTURE)</b></p> <p>Palmar fascia</p>  | <p><b>PLANTAR FIBROMATOSIS</b></p> <p>Sole of foot (Pain &amp; impacts walking)</p>    | <p><b>PENILE (PEYRONIE DISEASE)</b></p> <p>Dorsolateral aspect of the penis</p>  | <p>They are The Same Under The Microsok</p> |
| <p><b>Deep fibromatoses</b></p> <p>20-30% / female</p> <p>Deep infiltrative but bland</p> <p>Dissect Metastasis</p> <p>Adventitial wall, secondary and tertiary</p> | <p>Mutation in <sup>skin (c4)</sup> CTNB1 (B-catenin) Or ABC</p>  | <p>Completely excision is need to prevent recurrence / and we should taking safe margin (4-5cm) bec it's infiltrating the surround tissue</p>  |   |   |

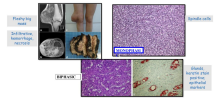
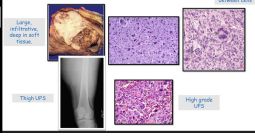
# Skeletal Muscle Tumor

|                                      |  |   |   |
|--------------------------------------|--|---|---|
| <p><b>Pathology</b></p>              |  |   |   |
| <p><b>rhabdomyoma</b></p>            | <p>Benign and rare occurs with tuberous sclerosis (CNS disease).</p> | <p>Rhabdomyoma usually occurs in the tongue and in the heart.</p>   |   |
| <p><b>Rhabdomyosarcoma (RMS)</b></p> | <p>malignant prototype; most common child sarcoma</p>                | <p>Aggressive tumors (high grade) treated by surgery, CT +/- RT</p> |  |

# Smooth Muscle Tumor

|  |  |  |   |
|--|--|--|---|
| <p><b>Leiomyoma</b></p>                            | <p>Benign common in any site/<br/><b>Fibroid most common</b></p>   | <p>well circumscribed, not infiltrative, no hemorrhagic necrosis, and firm white appearance)</p>           | <p><b>LEIOMYOMA FEATURES:</b></p> <p>Well circumscribed, firm white and unvascularized tumor</p>    |
| <p><b>Leiomyosarcoma</b></p> <p>adult / female</p> | <p>Malignant</p> <p>Deep soft tissue, extremities and retroperitoneum or from great vessels, uterus.</p> | <p>Hemorrhage, necrosis, increased mitosis (abnormal/malignant) and infiltration of surrounding tissue</p> | <p><b>LEIOMYOSARCOMA FEATURES:</b></p> <p>Big (10-15cm), spreading muscle nodules</p> <p>The tumor may occupy the portion of the site to remove the tumor</p> <p>Cellular, hemorrhagic, necrosis</p> <p>Increased mitosis</p>  |

# Tumor of uncertain origin

|  |   |   |
|--|---|---|
| <p><b>SYNOVIAL SARCOMA</b></p> <p>Spiny = Remove Tumor Without Remove Whole Limb</p> <p>20-40% Adult</p> | <p>T(X):8(p11q21)</p> <p>fusion genes SS18...</p> <p>(confirmed through FISH analysis)</p> <p>Histologically they are either Monophasic (only spindle cells) or biphasic (spindle cells and glands)</p> <p>Tx: aggressive with limb sparing excision + CT</p> <p>5 year survival 25-65% depending on stage (they need multimodality MDT approach)</p> <p>Metastatic: lung and lymph nodes</p> | <p><b>SYN. SA. FEATURES:</b></p>   |
| <p><b>UNDIFFERENTIATED PLEOMORPHIC SARCOMA (UPS):</b></p>  | <p>High grade mesenchymal sarcomas of pleomorphic cells that lack cell lineage</p> <p>Large tumors; anaplastic and pleomorphic cells, abnormal mitoses, necrosis, metastasis &amp; infiltration</p>   | <p><b>UPS FEATURES:</b></p> <p>Large, well-circumscribed, deep in soft tissue</p> <p>High grade UPS</p> <p>There is no transition between sites</p>  <p>Tx: aggressive with surgery and adjuvant CT +/- RT; poor prognosis</p> |

