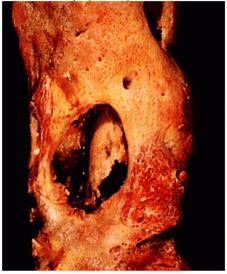
# Osteomyelitis

Figure 27.19

Resected femur in patient with draining osteomyelitis. The drainage tract in the subperiosteal shell of viable new bone (involucrum) reveals the inner native

necrotic cortex (sequestrum).

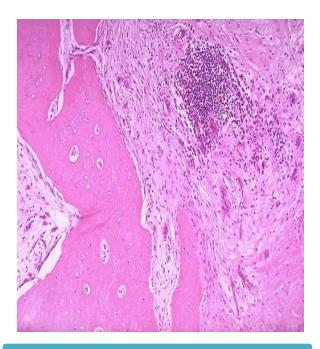


#### Gross section:

A. Involucrum: formation of new bone

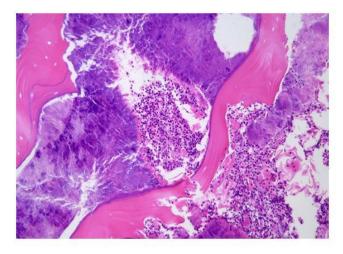
.

B. Sequestrum : necrotic died cortical bone .



### Histological section:

- A. Inflammatory cells, plasma cells.
- B. Fibrosis.
- C. Died trabeculae bone.
- D. Some new bone formation.



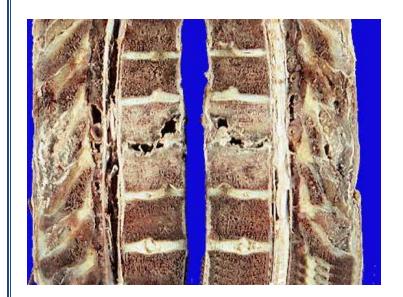


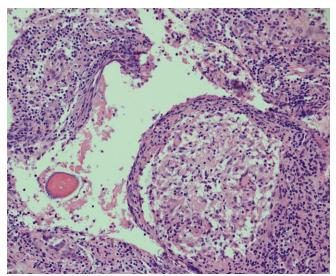
Bony sequestrae are surrounded by colonies of bacteria as well as purulent infiltrate.

Note: causes of Osteomyelitis

- Haematogenous spread
- Direct access via a penetrating injury.
- Direct spread from a neighbouring infected site

# Spinal TB - Potts Disease (Tuberculous osteomyelitis)





### Gross:

- A. Deformity of the (vertebra) bone
- B. White and necrotic area.

Histological section :

Granuloma formation:

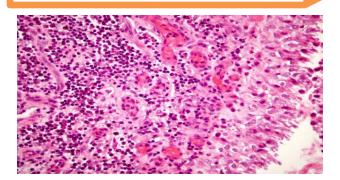
- A. epithelioid like cells .
- B. Langhans giant cell ( horse show like) .
- C. Caseous necrosis .
- D. Rim of lymphocytes .

### Rheumatoid arthritis non – infection autoimmune disease



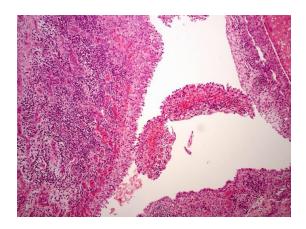
#### Gross section:

- A. The synovium becomes edematous .
- B. Thickened and hyperplastic and transforming its smooth contour to one covered by delicate and bulbous fronds .



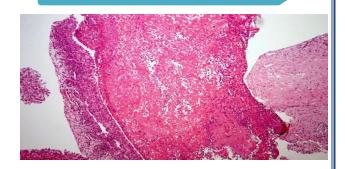
### Histological section:

- A. hyperplastic synovium .
- B. underlying plasma cells and lymphocytes including many congested blood vessels.



### Histological section:

- A. hyperplastic synovial lining with villous like projections .
- B. underlying dense lymphocytic infiltration and vascular congestion .



### Histological:

a pannus consisting of fibrinous inflammatory exudates with underlying markedly inflamed synovium , later on , calcification and causes permanent ankylosis

### Osteoarthritis





### Gross section:

- A. Erosion of articular cartilage .
- B. Eburnated articular surface.
- C. Some time Formation of subchondral cyst .

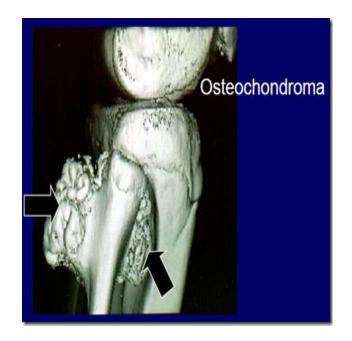




### Histological Section :

Mushroom-shaped osteophytes (bony outgrowths ) develop at the margins of the articular surface and Note the absence of inflammation .

# Osteochondroma (osteochondroma exostosis)





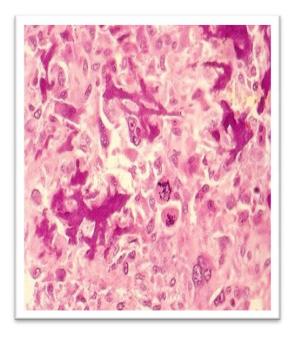
### Gross Section:

two osteochondromatous exostosis which are arising from the upper third of fibula .

### Histological section :

- A. Cartilage cap.
- B. Underlying bone trabeculae .

# Osteosarcoma – Malignant tumor





### Histological section:

A. sheet of infiltrated malignance cell with large , polymorphic nuclei that produce osteoid .

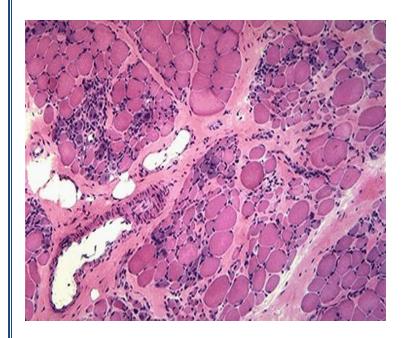
- B. Malignance osteoblast
- C. new bone formation in abnormal way
- D. A lot of mitosis

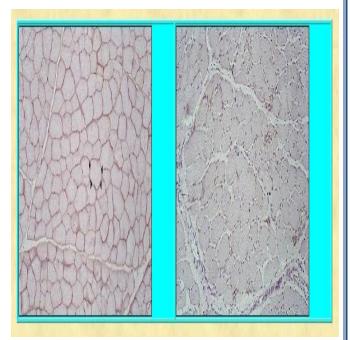
### Gross section:

Conventional osteosarcoma

- A. Start from intra-medullar canal.
- B. irregular and infiltration .
- C. necrosis and hemorrhage in the middle .

## Duchenne muscular dystrophy





### Histological section :

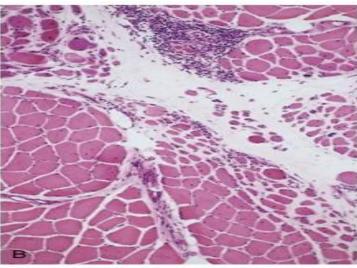
- A. Variation of muscle fiber size.
- B. Increase connective tissue.
- C. Regenerating fibers (blue hue).

### Note Pic in the left normal:

Dystrophin, an intracellular protein, forms an interface between the cytoskeletal proteins and a group of transmembrane proteins

### Dermatomyositis





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### **Histological Section:**

The histological appearance of muscle shows perifascicular atrophy of muscle fibers and inflammation .

العمل هذا يعتبر ملخص للسلايدات سمعت التسجيل وكتبت النقاط الي ذكر ها الدكتور .. لذلك كلا يعتبر مصدر رئيسي للمذاكره على المداكر المداكرة ال

ودعواتكم لي بالتوفيق