

بسم الله الرحمن الرحيم



## FINAL | Lecture 1-3

### Past papers

**Written by: Yazan Aldebei**

**Reviewed by : Ibraheem samarah**

﴿ وَإِنْ تَوَلَّوْا يَسْتَبَدِلْ قَوْمًا غَيْرَكُمْ ثُمَّ لَا يَكُونُوا أَمْثَلَكُمْ ﴾

اللهم استعملنا ولا تستبدلنا  
إني لما أنزلت إلي من خير فقير



PHATHOLOGY



The image features three vertical bars of varying shades of purple on the left side, ranging from a dark purple to a light lavender. The main area of the image is white.

# Past papers

Q1: TGF-B is essential for the pathogenesis of:

- A. Rheumatoid Arthritis
- B. Osteoarthritis
- C. Suppurative Arthritis
- D. Gout
- E. Lyme Disease

Ans:B

Q2: All of the following is indicative of gout over pseudogout except:

- A. Gout has a Positive birefringent test
- B. Gout is caused by hyperuricemia
- C. Gout can cause formation of Tophi
- D. Urate crystals of gout is rod-shaped

Ans:A

Q3: Giant cell tumors of the bone are most commonly found in:

- A. Small fingers
- B. Metaphysis of long bones
- C. Flat bones
- D. Epiphysis of long bones
- E. Diaphysis of long bones

Ans:D

Q4: A patient presents with suppurative urethral discharge with a swollen ankle joint. The disease is:

- A. The most common seronegative arthropathy
- B. Autoimmune reactive seronegative arthropathy
- C. Ankylosing spondylitis
- D. Ganglion Cyst
- E. Desmoid tumor

Ans:B

Q5: Compared to Osteoarthritis, Rheumatoid Arthritis is:

- A. Suppurative
- B. Non-systemic
- C. Wear and tear
- D. True, non-suppurative autoimmune synovitis
- E. Occurs mostly in the elderly

Ans:D

Q6: A patient presents with pain in his big toe. Which of the following is the possible diagnosis?

A. Pseudogout

B. -ve birefringence rhomboid shaped crystals under of aspirate under polarizing light

C. +ve birefringence rhomboid shaped crystals of aspirate under polarizing light

D. Osteoarthritis

E. -ve birefringence needle shaped crystals of aspirate under polarizing light

Ans: E



Q7: You are an intern in the emergency room on Thursday night. A 12-year-old boy comes with sudden pain in his right knee and was limping when you saw him. His right knee is swollen, red and feels hot on touch. He has fever and his white blood count is 19,000/ mL with increased neutrophils.

Which statement best describes this condition:

- A. Consider lower femur fracture, X-ray will be diagnostic
- B. Most consistent with juvenile idiopathic arthritis
- C. Consider acute septic arthritis caused by gram-positive cocci
- D. Most likely acute gouty arthritis , aspirate to check for crystals
- E. Biopsy of the joint will show necrotizing granuloma

Ans:C

Q8: The earliest change in osteoarthritis affects:

- A. Cartilage
- B. Bone
- C. Skeletal muscles
- D. Mesothelium
- E. Tendons

Ans:A

Q9: Which of the following represents the correct order of events in rheumatoid arthritis:

- A. Activated B-lymphocyte - secretory plasma cell - activate T-lymphocyte
- B. Activated T-lymphocyte - activate B-lymphocyte - secretory plasma cell - rheumatoid factor
- C. Activated macrophage - activated B-lymphocyte - rheumatoid factor
- D. Activated T-lymphocyte - activate macrophage - secretory plasma cell
- E. Activated CD4-lymphocyte - activated endothelium - secretion of rheumatoid factor

Ans:B

Q10: Big toe is a clinical manifestation of which disease:

- Answer: GOUT

Ans:

Q11: Which one of the following statements best characterizes degenerative joint disease of bone:

- A. Insidious and increase with age
- B. Avascular necrosis is a common complication of severe cases
- C. Pannus formation is characteristic
- D. Primary disease of the synovium
- E. Secondary etiology is more common than idiopathic/primary

Ans:A

Q12: A 45-year-old man came to your clinic with severe big toe pain and swelling. No history of trauma was mentioned. Aspiration of the big toe interphalangeal joint revealed needle-shaped crystals with negative birefringence. The most likely diagnosis is:

- A. Osteoarthritis
- B. Acute Gouty arthritis
- C. Sero-negative Reiter disease
- D. Rheumatoid arthritis
- E. Pseudo-gout arthritis

Ans: B

Q13: A 76-year-old male patient came with severe acute hip pain. Pelvic X-ray revealed a pathologic fracture at the neck of femur with multiple osteoblastic lesions of all pelvic bones and vertebrae. What would be the most cost-effective test to confirm the diagnosis in this patient:

- A. Open reduction and tissue biopsy
- B. Grade V degenerative joint disease changes
- C. Rheumatoid arthritis
- D. CT scan of abdomen and pelvis
- E. Serum prostate specific antibody (PSA) level

Ans:E

Q14: A 65-year-old woman presents with multiple hand joint pain and swelling. She complains of morning joint stiffness that improves slowly after initial movements. Bilateral ulnar deviation was noted on examination. Which one of the following tests will confirm your top differential diagnosis:

- A. Arthro scopic examination
- B. Rheumatoid factor
- C. High resolution X-ray of the hands and the feet
- D. Joint fine needle aspiration fluid examination
- E. No need for further testing;the patient has ankylosing spondylitis

Ans:B



Q15: Severe knee joint space narrowing, subchondral bone cyst formation and subchondral bone sclerosis are characteristic features of advanced cases of which one of the following:

- A. Ankylosing spondylitis
- B. Lyme disease
- C. Osteoporosis
- D. Degenerative joint disease (Osteoarthritis)
- E. Rheumatoid arthritis

Ans:D

Q16: In contrast to lipomas; liposarcomas are:

- A. Larger masses, commonly in the thigh and retroperitoneum
- B. Treated mainly by chemotherapy alone
- C. The most common soft tissue tumors
- D. Usually smaller in size
- E. Devoid of any specific genetic or molecular abnormalities

Ans:A

Q17: Rhomboid-geometric crystals were seen on joint aspirate from a 60-year-old male patient who came with right ankle joint pain and swelling. The crystals exhibit weakly positive birefringence under polarizing microscope. What is the diagnosis:

- A. Pseudogout
- B. Sero-negative arthropathy of ankle joint
- C. Acute gouty arthritis
- D. Acute exacerbation of osteoarthritis
- E. Chronic gouty arthritis

Ans:A

18: Giant cell tumor has:

- Answer: osteoclast-like cells

# Test bank

Here are Some USMLE-like questions designed to strengthen your understanding.

1) A 55-year-old man presents with acute pain in his right first metatarsophalangeal joint. Joint aspirate shows negatively birefringent needle-shaped crystals. What is the most appropriate acute treatment?

- A) Allopurinol
- B) Colchicine
- C) Methotrexate
- D) Anti-TNF therapy

Ans:B

2) A 62-year-old woman has a painful, swollen knee. Joint fluid shows rhomboid-shaped, positively birefringent crystals. What underlying condition may predispose her to this disease?

- A) Rheumatoid arthritis
- B) Diabetes mellitus
- C) Gout
- D) Systemic lupus erythematosus

Ans:B

3) A 52-year-old man with chronic kidney disease presents with monoarticular joint pain. Aspirate reveals needle-shaped negatively birefringent crystals. What enzyme is inhibited by allopurinol to prevent future attacks?

- A) Xanthine oxidase
- B) Phospholipase A2
- C) Cyclooxygenase
- D) Lipoxygenase

Ans:A



4) A 35-year-old woman has a bone lesion in the proximal femur. Histology reveals fibrous tissue with curvilinear trabeculae of woven bone (“Chinese letters”). Genetic analysis shows a GNAS mutation. What syndrome might be associated with this finding?

- A) Ollier disease
- B) McCune-Albright syndrome
- C) Gardner syndrome
- D) Li-Fraumeni syndrome

Ans:B

5) A 12-year-old girl presents with persistent knee pain and swelling for 8 weeks. ANA is positive, but rheumatoid factor is negative. What distinguishes her condition from adult RA?

- A) Presence of joint erosions
- B) Symmetrical joint involvement
- C) Large joints affected more than small joints
- D) High titer of anti-CCP antibodies

Ans:C

6) A 45-year-old man presents with pain and swelling in his right big toe after a seafood-heavy dinner and alcohol. What lab abnormality would support the diagnosis?

- A) Low serum calcium
- B) High ESR
- C) Hyperuricemia
- D) Elevated creatine kinase

Ans:C

7) A 7-year-old boy has multiple pigmented skin patches and recurrent fractures. Imaging shows multiple bone lesions, and biopsy reveals fibrous dysplasia. What additional finding suggests McCune-Albright syndrome?

- A) Café-au-lait spots
- B) Adenomatous colon polyps
- C) Precocious puberty
- D) Blue sclerae
- E) A+C

Ans:E

8) A 50-year-old man with chronic back pain is found to have multiple lytic lesions on spine X-ray. Biopsy shows carcinoma cells. What is the most common source of lytic bone metastases in this case?

- A) Prostate
- B) Lung
- C) Liver
- D) Colon

Ans:B

الحمد لله

# For any feedback, scan the code or click on it.



Corrections from previous versions:

Versions	Slide # and Place of Error	Before Correction	After Correction
V0 → V1			
V1 → V2			

Additional Resources:

رسالة من الفريق العلمي:

ربع ساعة استراحة مع المنشاوي العظيم

<https://youtu.be/yRXXtvZYHn4?feature=shared>