



Orthopedic MCQ questions



.Introduction to fractures and trauma

1. Principles of fractures management one is wrong; Select one.
 - a) Neurovascular exam is the most important part of the exam.
 - b) Open fractures are not treat by debridement at Emergency department.**
 - c) When examining start with active then passive movement.
 - d) Splint all fractures before send, patient to X-Ray.
 - e) Antibiotic is not used for closed fractures.
2. A patient presents to the emergency department with a open fracture. The wound measures 11 cm, that needed surgical intervention during which they found the radial artery was injured /cut and fixed it. Based on the Gustillo-Anderson classification, this wound is graded as:
 - a) Type I
 - b) Type II
 - c) Type IIIA
 - d) Type IIIB
 - e) Type IIIC**
3. which of the following isn't a risk factor for stress fracture :
 - a) male**
 - b) corticosteroid use
 - c) alcohol and smoking
 - d) obesity
 - e) military installations { repeated minor loading }
4. A patient presents to the emergency department with a segmental tibia fracture as a result of a gunshot injury with a 1-cm entrance wound. After appropriate irrigation and debridement, the wound measures 11 cm, there is no arterial injury, and the wound edges are easily approximated. Based on the Gustillo-Anderson classification, this wound is graded as:
 - a. Type I
 - b. Type II
 - c. Type IIIA**
 - d. Type IIIB
 - e. Type IIIC
5. Fracture with more than two fractured ends is called :
 - a. comminuted ****
 - b. Compound
 - c. Pathological
 - d. Stress
 - e. Compressed
6. can cause delayed union and non union of the fracture except :
 - a. Good immobilization ****
 - b. Inadequate circulation
 - c. Infection
 - d. Gaps because of bone loss
 - e. Loss of vital tissue attachment
7. All the followings are an absolute signs in the fracture except :
 - a. Abnormal movement with crepitus
 - b. Loss of function
 - c. Pain and tenderness
 - d. Swelling

- e. Deformity **
- 8. Sequence of musculoskeletal examination as a following:
 - a. look-feel-move-function **
 - b. function-look-move-feel
 - c. look-feel-function-move
 - d. feel-move-look-function
 - e. feel-move-function-look
- 9. Wrong statement : **Healing of transverse fracture is more than spiral**
- 10. all done according to ATLS emergency , except : **Skull xray??**

Nerve entrapment

1. All the following are signs of carpal tunnel syndrome Except; Select one:
 - a) Paresthesia of lateral three and half fingers
 - b) Weakness of thumb opposition
 - c) Thenar atrophy
 - d) Positive phalen test
 - e) **Positive froment sign**
2. Carpal tunnel syndrome is a compression of the transverse carpal ligament at the wrist on the :-
 - a. **median nerve .****
 - b. radial nerve .
 - c. ulnar nerve .
 - d. musculocutaneus nerve .
 - e. axillary nerve .
3. Phalen test for CTS include one:
 - a. forced extension of wrist
 - b. forced ulnar deviation of wrist
 - c. **forced flexion of the wrist ****
 - d. forced flexion of MPJ
 - e. forced radial deviation of wrist

Spinal injury and trauma

1. Which of the following Spine fracture patterns is at greatest risk for nonunion with non operative and operative treatment; Select one:
 - a) Jefferson fracture.
 - b) 50 percent wedge L2 fracture
 - c) **Base of Odontoid process fracture**
 - d) Type 1 Hangman's fracture
 - e) Tip of odontoid process fracture
2. An elderly man with pre-existing cervical spondylosis, falls sustaining hyperextension injury to his neck. On examination he has motor deficit worse in the upper limb than the lower limb.Which spinal cord injury explains this presentation.
 - a. Complete spinal cord injury.
 - b. Anterior cord syndrome.
 - c. Brown-Sequard syndrome.
 - d. **Central cord syndrome.**
 - e. Spinal shock
3. Case of RTA with loss of movement in upper more than lower :
 - Central cord syndrome**

4. 20 year male patient presented after RTA with complete paralysis of the lower limbs, without sensory function, on assessment he was hypotensive, with bradycardia, absent peripheral reflexes.

What is the first sign that signifies the end of spinal shock phase

- a. Heart rate more than 60
- b. Mean arterial pressure more than 60
- c. Return of bulbocavernosus reflex
- d. ASIA score B
- e. Normal peripheral vascular resistance

Spondylolisthesis and spondylolysis

1. All of the following is true regarding Isthmic spondylolisthesis EXCEPT
 - a) It's a common cause of low back pain in children and adolescents
 - b) It's caused by a defect in the pars interarticularis
 - c) Most common location is L4-L5
 - d) Usually activity related and occurs from repetitive extension
 - e) Most commonly it's treated conservatively
2. All of the following is true regarding isthmic spondylolisthesis EXCEPT
 - a) it's a common cause of low back pain in children and adolescents.
 - b) it caused by a defect in the pars interarticularis.
 - c) Most common location is L5-S1.
 - d) Usually activity related and occurs from repetitive flexion exercise
 - e) Most commonly its treated conservatively.
3. About Spondylolysis, site of fracture: Pars interarticularis

Disc herniation and canal stenosis

1. Radiculopathy of c- spine, one is FALSE; Select one:
 - a) C4 radiculopathy causes scapular winging.
 - b) C5 radiculopathy leads to deltoid and biceps weakness, numbness lateral shoulder.
 - c) C6 radiculopathy leads to arm pain, paresthesia in the thumb, weakness to brachioradialis.
 - d) C7 radiculopathy leads to rotator cuff weakness and diminished sensation in the thumb.
 - e) C8 radiculopathy lead to weakness in distal phalanx flexion of middle and index finger
2. All of the following are considered as RED FLAG in Low back pain Except; Select one:
 - a) Night sweating and fever
 - b) High grade fever and low back pain
 - c) Sciatica
 - d) Progressive neurological deficit
3. All of the following are considered as RED FLAG in Low back pain Except; Select one:
 - a) Intravenous drug use.
 - b) Low back pain for 2 months duration.
 - c) Perineal paresthesia.
 - d) Progressive neurological deficit
 - e) Immunosuppressive drug therapy
4. All of the following are considered as RED FLAG in Low back pain Except:

- a. Intravenous drug use.
- b. Smoking for 10 pack/year
- c. Saddle paresthesia.
- d. 15 year old boy.
- e. Immunosuppressive drug therapy

Scoliosis and Kyphosis

1. 17-year-old female patient presented to the clinic with scoliotic back deformity, after physical examination and performing the primary diagnostic X-rays, which of the following is indicative to perform whole Spine MRI, Select one:

- a) Cobb's angle of 36 degrees
- b) Pelvic asymmetry.
- c) Painless curve
- d) Neurofibromatosis???
- e) Early menarche

2. What is the most common type of kyphosis in 17 years old young adult?

- a) Postural Kyphosis
- b) Scheuermann's kyphosis
- c) Congenital Kyphosis
- d) Adolescent idiopathic Kyphosis

3. Thirteen-year-old female patient presented to the clinic with scoliotic back deformity, after physical examination and performing the primary diagnostic X-rays, which of the following is indicative to perform whole Spine MRI, Select one:

- a) Cobb's angle of 36 degrees
- b) Lt thoracic curve with apical kyphosis
- c) Pelvic asymmetry.
- d) Painless curve
- e) Family history of juvenile Scoliosis

4. 5 year old male patient , presented with back deformity, on radiological examination, he has an unsegmented 2 vertebrae with unilateral bar , cobb's angle 32 degree, which type of deformity this patient has

- a. Scheuermann's kyphosis
- b. Adolescent idiopathic scoliosis
- c. Juvenile scoliosis
- d. Infantile scoliosis
- e. Congenital scoliosis

5. All are important Qs to ask in during history taking for scoliosis, except:

- a. Family history
- b. Age
- c. Age of menarche
- d. Sex

6. wrong about structural scoliosis :

- a- always ass. with bone and skeletal abnormality
- b- there is a lump at a concave side in the thorax
- c- don't change with change in position
- d- may increase in severity with growth

7. scoliosis measured by:

- a- cobb's angle **

Osteoporosis

1. All of the following bones are affected by Osteoporosis except :
 - a) Scapula
 - b) Vertebral body
 - c) femoral neck
 - d) distal radius
 - e) proximal humerus

2. All the following is a Risk factor for osteoporosis except :
 - a) Female
 - b) Alcohol
 - c) Sedentary life style no exercise
 - d) Obesity
 - e)Smoking

3. **One is not an osteoporotic fracture; Select one:**
 - a) Vertebral fracture
 - b) Proximal femur fracture
 - c) Tibia fracture
 - d) Distal radius
 - e) Proximal Humerus

4. **Osteoporosis, one is wrong:**
 - a. Females are more affected
 - b. at least 30% loss of bone mass needed to be diagnosed on X-Ray
 - c. bone looks darker on X-ray
 - d. Z score is more important than T score
 - e. DEXA scan is the gold standard for diagnosis

5. All of the following bones are affected by Osteoporosis except :
scapula

6. About Osteoporosis, One of the following is a risk factor :
Thyrotoxicosis

7. about osteoporosis all true except?
a. more in females
b. secondary causes may appear earlier
c. less likely to be in obese people
d. Tscore more important than Z

8. All of the following are risk factors for osteoporosis, except:
1) Hysterectomy
2) A physically active 45 yo woman

9. Hydroxylation of 25-hydroxycholecalciferol (calcifediol) to Calcitriol occurs in the:
a. Liver
b. Kidney
c. Thyroid
d. Parathyroid hormone
e. Lung

Introduction to nerve injury

1. The best recovery and prognosis after nerve injury is seen in which combination; Select one:
a) Child with neurotmesis.
b) Healthy adult with neurotmesis.
c) Child with neurapraxia.
d) Healthy adult with neuropraxia
e) Child with axonotmesis

2. Nerve injuries, one is wrong; Select one:
a) Crush injury is bad prognostic factor.
b) Neuropraxia endoneurium is intact.
c) Axonotmesis: neurona formation
d) Neurotmesis wallerian degeneration
e) Distal injury is better than proximal.

Rickets and osteomalacia

1. Wrong match :

- a) Osteomalacia - bone deformity
- b) perthes - ADHD
- c) DDH - swaddling
- d) rickets thin cortex

2. Rickets, one is wrong; Select one.

- a) Vitamin D deficiency most common cause
- b) Can result from malabsorption.
- a) Vitamin D resistant is related to phosphate.
- b) calcium level in the blood is normal or near normal in most cases.
- c) Vitamin D dependent can be caused by enzyme mutation.

3. Rickets disease, one is wrong:

- a. Vit D deficient is rare these days
- b. can result from mal-absorption
- c. Vit D resistant is related to phosphate
- d. calcium level in blood is low most of the times
- e. Vit D dependent can be caused by receptor mutation

4. Not a manifestation of Osteomalacia :

???

5. Osteomalacia is associated with :

Insufficiency fracture ?!

Pediatric fx :

1. **One is not true regarding fracture management in pediatrics: 2 ررئم**
Select one.

- a) Conservative management for the majority of fractures
- b) **Toddler fracture is treated with closed reduction and casting.**
- c) Type three supracondylar fracture is treated with closed reduction and wires.
- d) Closed reduction is better than open in most of cases.
- e) Stiffness is rare in pediatrics as a complication

2. **wrong about proximal humeral fracture in pediatric**

- a) salter haris type 1 is rarely seen and can be managed {conservatively or without follow up *-* can't remember which} ??
- b) proximal humerus has the ossification in the upper limb
- c) site for pathological fracture

3. **elbow :**

- a) the lateral epicondyle fracture has better prognoses than supracondylar fracture
- b) the medial epicondyle has faster ossification than the radial head
- c) distal radial fracture if more than 30 ° displaced it need Open reduction
- d) supracondylar fracture type 2 can be treated conservatively
- e) **Supination and hyper-flexion of the elbow Is the treatment for Nursemaid elbow (note : it is the pulled elbow)**

4. **Regarding elbow fractures in pediatrics all are true except; Select one:**

- a) Supracondylar fracture is most common.
- b) Fat pad can be the only symptom.
- c) Anterior humeral line can be normal.
- d) **Pulled elbow is diagnosed by radial head subluxation seen on AP X-Ray**
- e) Lateral condylar fracture can be treated conservatively

5. **Regarding elbow fractures in pediatrics, all are true except:**

- a. supracondylar fracture is most common
- b. fat pad can be the only symptom
- c. anterior humeral line can be normal
- d. lateral condyle fracture can be treated conservative
- e. pulled elbow needs surgery and casting

6. All of the following indicate poor prognosis for Salter Harris fracture except:

- a. Older age at the time of injury of growth plate
- b. growth plate that is very active like distal femur
- c. significant displacement
- d. late diagnosis
- e. Formation of bar

7. Toddler fracture , one is wrong:

- a. age is usually 1-3
- b. tibia fracture
- c. nondisplaced fracture most of the times
- d. usually transverse
- e. more obvious on lateral view

8. Something about Pediatric fracture :
type 1 easily seen in x-ray

9. Most common type of Salter Harris :
Type II

10. wrong about nursemaid (pulled elbow):

- a- occur with traction to flexed arm

11. All the following may cause non – union in the fracture except:

- a. bad immobilization .
- b. bad circulation .
- c. fracture in the metaphysis of long bones in children .**
- d. infection .
- e. bone loss

DDH :

1. DDH, one is wrong; Select one:

- a) Left side is more than right
- b) Less common in premature
- c) happens in female earlier
- d) Very mild DDH can't be treated conservatively
- e) Open reduction is treatment for older child

2. DDH, one is wrong:

- a. Gender can be a risk factor
- b. left side is more common
- c. happens perinatal or after birth
- d. static devises are preferred over dynamic for treatment
- e. treatment is surgery if diagnosed after age of one year

3. Wrong regarding DDH:

It is always familial

4. All the following are DDH risk factors except :

Polyhydrominas

5. Baby 3 months age , examined for DDH , acetabular index on right 32° on left 23 , what to do?

6. All the following about C.D.H (congenital dislocation of the hip) are correct except :

- a. Limitation of abduction in the involved hip
- b. Shortening of the affected limb
- c. Left hip is more affected than the Rt hip
- d. Limitation of adduction in the involved hip **
- e. Telescoping movement in the affected hip

7. All the following are signs and symptoms in congenital dislocation of the hip except :

- 1) shortening of the affected limb .
- 2) limping on the affected limb .
- 3) assymetrical skin folds .
- 4) limitation of abduction in the affected hip .
- 5) **limitation of adduction in the affected limb .**

8. DDH, one is wrong; Select one:

- a) Left side is more than right
- b) **More common in premature**
- c) If one child is affected, the risk for the second child is increased
- d) Dynamic brace has less complications than static brace
- e) Open reduction is treatment for older child

SCFE , Transient synovitis & perthis disease

1. One below is WRONG :

- **Perth's in Older children has a good prognosis**

2. Thirteen years old boy arrived to Emerge, department with left knee pain with no clear history of trauma, he had the pain for one month, but the pain increased over the last week which is not part of your differential diagnosis; Select one:

- a) SCFE
- b) Hip synovitis.
- c) **Perthis disease (painless)**
- d) Inflammatory disease
- e) Osteosarcoma

3. One is not of the hip at risk signs; Select one:

- a) Gage sign
- b) Calcification lateral to the epiphysis
- c) Lateral subluxation of the femoral head
- d) **Vertical proximal femoral physis**
- e) Diffuse metaphyseal cysts

4. SCFE,one is ture:

- a. girls more common
- b. Trauma is always in the history
- c. Treatment is conservative if nondisplaced
- d. MRI is mandatory for diagnosis
- e. **boys are affected at later age than girls**

5. Perthes disease, one is not true:

- a. age 4-8
- b. smoking parents is risk factor
- c. **obese child**
- d. X-ray can be normal at early stages
- e. containment is the main treatment principle

6. Wrong regarding Perthes disease :
No rule for conservative treatment

7. Perth's , one is unfavorable prognostic sign :
the answer is about the "severe metaphyseal rarefaction"

8. case: Child male 14 years old came with hip and groin pain , no fever , not toxic , D? :

Slipped capital femoral

9. The first sign in a child with perth disease is:

a. Antalgic gait

10. most important surgical indication for SCFE is:

- a- pain
- b- limping
- c- correct malformation
- d- **correct leg discrepancy ??**

(Treatment of SCFE is focused on stabilization of the epiphysis with induction of physeal fusion and growth arrest+ for fixation)

11. The most common cause of hip pain in the young child is :

- a. Perthes disease
- b. Slipped upper femoral epiphysis
- c. Developmental dysplasia
- d. Transient synovitis****
- e. Developmental coxa vara

Lower limb and ankle

1. Which of the following muscles is supplied by the Deep peroneal nerve?*

 - a) flexor hallucis longus
 - b) **Tibialis anterior**
 - c) Flexor digitorum longus
 - d) Flexor hallucis brevis

2. The used classification for proximal tibial fracture classification is; Select one: **رر كم 2**

 - a) Neers classification
 - b) Garland classification
 - c) garden classification
 - d) **schatzcker classification**
 - e) weber classification

3. which of the following is wrong about the lower limb fractures ?

 - a) tibial bone fractures complication can be delayed union and non union
 - b) **Pilon rarely associated with soft tissue injury**
 - c) Classification of calcaneus fractures is Based on the number of articular fragments seen

- 4. One is not of the hip at risk signs; Select one: is**

 - a) Gage sign
 - b) Calcification lateral to the epiphysis
 - c) Lateral subluxation of the femoral head
 - d) **Vertical proximal femoral physis**
 - e) Diffuse metaphyseal cysts

5: Todler fracture , one is wrong:

- a. age is usually 1-3
- b. tibia fracture
- c. nondisplaced fracture most of the times
- d. **usually transverse**
- e. more obvious on lateral view

6. Case of injury with failing to dorsiflex, which nerve is injured :

Deep peroneal nerve

7. All of the: Which one of the following causes a Trendelenburg gait

- a. **Injury to Superior gluteal nerve.**
- b. Weak hip adductors.
- c. Weak ankle dorsiflexors.
- d. Injury to Inferior gluteal nerve.
- e. Injury to Common peroneal nerve.

8: All of the following indicate poor prognosis for Salter Harris fracture except:

- a. **Older age at the time of injury of growth plate**
- b. growth plate that is very active like distal femur
- c. significant displacement
- d. late diagnosis
- e. Formation of bar

9. The common peroneal nerve supplies:

- a. Ant compartment of leg
- b. Post compartment of leg
- c. Lat compartment of leg
- d. A & C
- e. **B & C ****

10. Injury in the deep peroneal nerve will cause: no answer

11. Most common fracture to be corrected surgically :

- a- **proximal femoral fracture ****
- b- proximal humerus fracture

12. Extensor hallucis longus muscle is innervated by:

- a. Tibial nerve
- b. Common peroneal nerve
- c. Femoral nerve

- d. Deep peroneal nerve
- e. Superficial peroneal nerve

12. Which one of the following causes a Trendelenburg gait **ررئتم 2 تونس**

- a. Injury to Superior gluteal nerve.
- b. Weak hip adductors.
- c. Weak ankle dorsiflexors.
- d. Injury to Inferior gluteal nerve.
- e. Injury to Common peroneal nerve.

13 -Ankle reflex root :

S1

. .14pt with ankle trauma and healed but on internal fixation in the past. nowshe have osteoarthritis with severe daily restricting ..management

- a- arthrodesis
- b- total ankle arthroblasty
- c- hemiarthroblasty

Foot anatomy and disorders:

1.True about club foot CTEV -

- a) start management at 3 months
- b)Skin and soft tissue of the calf and the medial side of the foot are short and underdeveloped

2.All of the following are components of Club Foot except; Select one: **ررئتم 2**

تاونس

- a) Midfoot cavus
- b) Forefoot adductus
- c) Hindfoot varus
- d) Hindfoot equinus
- e) Pronation of the entire foot

3.You are consulted in the nursery regarding a newborn baby, for foot deformity, you diagnosed the baby with CTEV (Club foot) all are true Except:

- a. The heel is in equinus
- b. The midfoot and forefoot is adducted and pronated
- c. The skin and soft tissues of the calf and the medial side of the foot are short and underdeveloped
- d. the X-ray is used to measure the angle between calcaneus and talus
- e. Management should be started as early as possible

4.True regarding Club foot :

We start to treat cavus first ? I'm not sure

5.Club foot deformity, false about it :

heel is pronated

6.Hallux valgus , false about it :

It usually need a surgery

7.All of the following are associated with Hallux valgus except; Select one.

- a) Lateral deviation and rotation of the hallux
 - b) Prominence of the medial side of the head of the first metatarsal
 - c) Contraction of adductor hallucis and the lateral capsule
 - d) **First Metatarsal bone in valgus position**
 - e) The sesamoid bones of flexor hallucis brevis are displaced laterally.
- 8.. in hullaxvulgas all are true except ? no answer in archive

9.Which of the following structures causes an avulsion fracture of the tuberosity of the fifth metatarsal; Select one: ررئكم 2 تلونس

- a) **Peroneus brevis**
- b) Tibialis anterior
- c) Achilles tendon
- d) Peroneus longus
- e) Tibialis posterior

10. Flat foot means collapse of :-

- a. **medial longitudinal arch .****
- b. medial transverse arch .
- c. lateral longitudinal arch .
- d. lateral transverse arch .
- e. anterior transverse arch .

11.: All of the following are case of pes planus except:

- a. Tibialis posterior tendon dysfunction
- b. Tarsal Coalition
- c. ligamentous laxity
- d. **Claw foot**
- e. Post traumatic

12. In Talipes equinus varus (club foot) all the following manifestations are present except :

- a. **the heel is everted ****
- b. the heel is inverted
- c. the ankle is in plantar flexion
- d. the forefoot is adducted
- e. the forefoot is inverted

13. Rocker bottom foot is :

congenital vertical talus

14. Talus fracture , what is the complication we do surgery to prevent :

AVN

15. About blood supply to bones , poor blood supply to which bone in the foot?

16. All the followings are correct about club foot (Talipes Equinus varus) except :

- a. Needs to start treatment as soon as possible
- b. Usually we start treatment with correcting stretching exercises and serial casts

- c. The forefoot is adducted and inverted
- d. The heel is inverted

17. e. The ankle is in dorsi flexion **I guess navicular bone

bone tumor :

1.- case of bone pain relieved by NSAIDs (osteoid osteoma) , what is the confirmatory test? :

CT scan

2. 12-year-old boy presented with continuous right thigh pain of three weeks duration, associated with fever and weight loss. No history of trauma. Physical examination revealed swelling, hotness of the right thigh. All of the following can be seen on the X ray of this patient EXCEPT: ررکم 2 تلونس

- a) Thinning of the cortex
- b) Extension to the surrounding tissues
- c) Onion skin appearance
- d) Sunburst appearance
- d) Codman triangle

3. 13 year old patient presented with right leg pain that awakened him from sleep, and relieved by pain medication, there was no history of fever or weight loss. X rays showed a small nidus surrounded by sclerotic bony reaction, the most likely location of this lesion is: ررکم 3 تلونس

- a) Epiphyseal
- b) Metaphyseal
- c) Diaphyseal
- d) Subchondral
- e) Apophyseal

4. Which of the following is wrong matched ?

- a) ewing tumor/ bone marrow tumor
- b) osteosarcoma / bone marrow tumor
- c) osteoid / bone forming tumor
- d) chondroma / bone marrow tumor

5. The earliest sign in the osteosarcoma is ;-

- a. skin color changes .
- b. hotness .
- c. redness .
- d. swelling .
- e. bone pain .****

6. - Osteosarcoma : **Most common site is at pelvis**

7. Bone tumor , mets to lung :

Giant cell tumor

8. One of the following is right :

woven bone is later replaced by lamellar bone

9. case of lower back pain – one of the following is the most common cause : **spondylolithiasis , Multiple myeloma**

10.ewing sarcoma all true except :

Arise from metaphysis

11.secondary osteosarcoma, can be 2ry for all of the following except:

a- **osteoma ****

12.most common site for osteosarcoma :

a- distal femur

13- Shepherd crook deformity is found in :

Fibrous dysplasia

Knee:

1. 22 year old male soccer player, presented to the emergency department complaining of left knee pain, swelling and locking, after he injured his knee while he had a contact injury in a game the day before , upon physical examination he has positive medial joint tenderness and a positive McMurray's test. What is the most likely injured structure? **ررکم 2 تلونس**

- a) Anterior cruciate ligament.
- b) Posterior cruciate ligament.
- c) **Medial meniscus.**
- d) Lateral meniscus

Iliotibial band.

2. All of the following are risk factors for recurrent patellofemoral joint dislocation except: **ررکم 2 تلونس**

- a) Previous history of patellofemoral dislocation.
- b) Ligamentous laxity (Ehlers-Danlos syndrome).
- c) High femoral anteversion.
- d) **Genu varus**

Trochlear dysplasia

3. 14 year old male child presented to the clinic complaining of both knees anterior pain, there is no history of trauma, upon physical examination there is mild swelling and tenderness at the tibial tuberosity, what is the diagnosis? **ررکم 2 تلونس**

- a) Meniscus tear.
- b) Anterior cruciate ligament tear.
- c) Prepatellar bursitis .
- d) **Osgood Schlatter's disease.**

Medial collateral ligament injury.

4. All of the following are true about menisci EXCEPT; Select one:

- a) The peripheral border is thick & attached to the capsule, the inner border is thin & concave forming a free edge.
- b) Medial menisci are a semicircle, but the lateral is almost a complete circle.

- c) They transmit the load across the surface of the joint. thus reducing the load per unit area on the tibio-femoral contact sites
- d) **Medial meniscus is less likely to be injured due to its peripheral attachment**
- e) They deepen the articular surfaces of the tibial condyles to receive the convex femoral condyles.

5. 30-year-old manual worker complain of right knee pain and instability. He has a history of hyperextension injury 2 months ago. Radiographs of the knee were unremarkable. The most likely positive physical exam test would be; select one:

- a) Anterior drawer test
- b) **Posterior drawer test**
- c) McMurry's test
- d) Varus stress test
- e) Vulgus stress test

1. The patellar tendon reflex is primarily transmitted through which of the following primary nerve roots:

- a. L1
- b. L2
- c. L3
- d. **L4**
- e. L5

6. Which test of the following is the best regarding the evaluation of the anterior cruciate ligament?

- a. **Lachman test**
- b. McMurray's test.
- c. Dial test
- d. Posterior drawer test
- e. Apprehension test

7. Positive McMurray test :

medial Meniscus tear

8. True matching :

Lachman test – examine ACL

9. ACL :

Hemarthrosis

10. ACL injury , hemoarthrosis in:

Medial anteriorly /tibia , laterally/femur

11. ACL ,all of the following are true except :

It usually results from contact sport injuries!

12. most common cause of anterior knee pain :

Chondromalacia patella

12. rehabilitation guidelines following total knee replacement (one true):

- a- allowed to drive after 6 weeks post op
- b- can do low impact sports like tennis, football..
- c- repetitive passive extension for the knee..
- d- not weight bearing for one week

Osteoarthritis

1. In treatment of Osteoarthritis of the knee , all of the following consider useful treatment in some Stages of the disease except:

مكرر

- a) Nonsteroidal anti-inflammatory drugs.
- b) Exercise.
- c) Weight reduction.
- d) **Oral supplement of glucosamine and chondroitin .**
- e) Total knee replacement

2. All of the following are recommended by AAOS guidelines for management of knee

Osteoarthritis EXC; Select one:

- a) Weight reduction
- b) **Lateral wedge insoles**
- c) NSAIDs
- d) Proximal tibial osteotomy
- e) Home exercises

3. **Wrong about Osteoarthritis :**
Periarticular osteopenia
4. **pt with ankle trauma and healed but on internal fixation in the past.**
now she have
osteoarthritis with severe daily restricting ..management
 - a- arthrodesis
 - b- total ankle arthroplasty
 - c- hemiarthroplasty
5. **Not a characteristic of Osteoarthritis :**
Valgus deformity (It is varus)

The hand questions

1. Case about a woman with index finger pain, swelling and tenderness on extension Involving flexor digitorum tendon Most appropriate step in management: {it was case of Tenosynovitis }

- a) Incision and drainage??
- b) Physical therapy to increase the rom
- c) Steroid injection
- d) NSAIDs

2. Regarding hands conditions. all of the following are correctly matched EXCEPT; Select one:

- a) Trigger finger is related to A1 Pulley.
- b) Swan neck deformity: 'riper-extension of PIP question
- c) Mallet finger: flexion of DIP
- d) Boutonniere: Flexion of PIP
- e) Dupuytren Contracture: Fibroblast proliferation

3. One of the following is not a part of Kanavel's criteria:

Hotness and redness

4. In DeQuervans disease, tenosynovitis of which of the following ends present :

- a. Extensor pollicis longus + abductor pollicis brevis
- b. Extensor pollicis brevis + abductor pollicis longus**
- c. Extensor pollicis brevis + abductor pollicis brevis
- d. Extnsor pollicis longus + abductor pollicis longus
- e. Extensor carpi radialislongus + abductor pollicis brevis

Brachial plexus injury

1. all of the following indicates POOR PROGNOSIS of brachial plexus injury except :

- a. return biceps function by 3 months
- b. Preganglionic injuries (worst prognosis)
- c. Loss of rhomboid function (dorsal scapular nerve)
- d. Elevated hemidiaphragm (phrenic nerve)
- e. Horner's syndrome (ptosis, miosis, anhidrosis)

2. Ulnar nerve injury results in one of the following:

- a. Claw hand.

3. clawing hand:

- a. MCP hyperextension-PIPJ flexion-DIPJ flexion **

4. About Klumpke's paralysis , it is associated with :Horner's syndrome

Pelvic and acetabulum Fx :

1. **40 year old male patient involved in road traffic accident presented to the emergency department by the civil defense , he was conscious oriented , his blood pressure was 90/60. Upon resuscitation, physical examination and proper imaging. He has isolated open book pelvis fracture. The mechanism contributing to his fracture is?2 ررکم**
 - a) **Anteroposterior compression.**
 - b) Lateral compression.
 - c) Vertical shear .
 - d) Crushing injury.
 - e) Dashboard injury.
2. **Which of the following is not type of acetabular fracture classification; Select one 2 ررکم**
 - a) Posterior column and posterior wall
 - b) Transverse and posterior wall
 - c) Both column
 - d) **distal tuberosity**
 - e) T-shaped
3. **32-year-old male patient arrived at emergency after Motor Vehicle Accident. His vital signs revealed temperature, blood pressure 90/60 mmHg. and pulse 110. Glasgow coma scale is 13. The emergency team started ATLS protocol management. Radiographs showed type ii anteroposterior compression injury. The next step should be, Select one:**
 - a) Full neurological assessment
 - b) Intravenous antibiotics
 - c) **Application of pelvic binder**
 - d) Blood transfusion
 - e) Chest. abdomen,
4. **Most common complication of pelvic fracture ??**
5. **True regarding pelvic fractures :**
conservative treatment is used for avulsion fractures
6. **Pelvic fracture and massively bleeding , what to do :**
Pelvic banding
7. **Post Pelvic fracture , the dr delay the management of the patient , which of the following is the most common expected complication to occur :**
 - a. **PE (I guess this is correct)**
 - b. recurrency
8. **The greatest danger with pelvis fracture is :**
 - a. **Hypovolemic shock**

Upper limb Fx

1. In case of Distal biceps tendon rupture select one regarding the elbow joint :
 - a) Flexion = supination
 - b) flexion is half of supination
 - c) only flexion becomes weaker
 - d) **Supination becomes weaker than flexion**
 - e) No change

2. in the clavicular fracture One below is WRONG, :
 - a) **the medial part goes posterio-inferiorly by the Sternocleidomastoid Muscle (true is posterio- superiorly)**
 - b) lateral one third fracture is common in elderly
 - c) keeping the bone in place after reduction is hard
 - d) risk of major vascular injury

3. regarding the force transmission which is correct ?
 - a) **full wrist extension transfer to the scaphoid**
 - b) Full wrist flexion transfer to lunate
 - c) full wrist flexion transfer to the scaphoid

4) 52 year old male patient presented to Emergency department complaining of right arm pain after hist, of Upon X-ray image there is a transverse humerus shaft fracture. All of the following are indication for Open reduction, and internal fixation except; Select one:

- a) Displaced intraarticular extension of the fracture
- b) Floating elbow (humerus fracture and forearm both bones fractures
- c) Pathological fracture.
- d) **Nondisplaced mid shaft humerus fracture in the dominant hand**
- e) Radial nerve palsy after manipulation

5) 27 year old Painter fell down from a ladder on out stretched hand on his left upper limb, he complaint of left wrist pain, swelling and inability to move his wrist. Upon physical examination he has tenderness and puffiness of anatomical snuff box. The most common complication of this patient fracture is? Select one

- a) Non-union
- b) Malunion
- c) **Avascular necrosis**
- d) Osteoarthritis
- e) Scapholunate advance collapse

6) Ulnar nerve compression symptoms is present in high percentage of patients with: Select one:

- a) Rotator cuff tendonitis
- b) **Medial epicondylitis**
- c) Lateral epicondylitis
- d) Frozen shoulder
- e) De quervain disease

7) 32 year old male, presented to emergency department complaining of Right elbow and swelling after he fell down the floor. In X-ray he has displaced transverse olecranon fracture. The muscle contributing to this displacement of fracture is ?

- a. Brachioradialis
- b. Anconeus
- c. **Triceps**
- d. Brachialis
- e. Pronator teres

27 year old male, fell down from a ladder, he injured his Left shoulder, after physical examination and X-ray he has displaced mid clavicle fracture. The most common complication of clavicle fracture is?

- a. **Malunion**
- b. Nonunion
- c. Axillary nerve injury
- d. Brachial artery injury
- e. Delayed union.

Avascular necrosis is a well known complication of bones after a displaced fracture. Which bone of the following will have the high incidence of Avascular necrosis if fractured?

- a. **Scaphoid**
- b. Metacarpel bone
- c. Humerus
- d. Ulna
- e. Phalanges

66 year old female not known to have medical illnesses , fell on out retched hand , she was unable to move her Right shoulder with tenderness over the shoulder region, in X- ray she has displaced four parts surgical neck humerus fracture .The best definitive treatment for her condition?

- a. Physiotherapy
- b. Rest and analgesia
- c. Sarmiento brace.
- d. Shoulder replacement
- e. Open reduction and internal fixation with plate and screws.

The Monteggia fracture is :

a fracture of the proximal third of the ulna with dislocation of the head of the radius.

Surgical Neck injury (they should mention humerus):

axillary NERVE !

1- Fracture middle shaft of the humerus has a high incidence of injury of the :-

- a. brachial artery .
- b. axillary nerve .
- c. ulnar nerve .
- d. radial nerve . ****
- e. musculocutaneus nerve .

2- The nerve, which can be injured in the anterior shoulder dislocation is :

- a. musculocutaneus nerve .
- b. axillary nerve . ****
- c. radial nerve .
- d. ulnar nerve .
- e. median nerve .

1. Circumduction movement can be seen in all of the following except:

- a. shoulder
- b. hip
- c. elbow ****
- d. wrist
- e. metacarpo-phalengial joint

1. All of the following bones are affected by Osteoporosis except :
- a) Scapula
 - b) Vertebral body
 - c) femoral neck
 - d) distal radius
 - e) proximal humerus

1) One is not an osteoporotic fracture; Select one:

- a) Vertebral fracture
- b) Proximal femur fracture
- c) Tibia fracture
- d) Distal radius
- e) Proximal Humerus

All of the following bones increased risk of fracture in patients with osteoporosis except

- a. Distal Radius
- b. Proximal humerus.
- c. Vertebral body.
- d. Proximal femur.
- e. Scapula.

girl fell on her hand , tenderness on the anatomical snuff box , mostly?

Scaphoid fx

Shoulder & elbow disorders

2. In case of Distal biceps tendon rupture select one regarding the elbow joint :

- a) Flexion = supination
- b) flexion is half of supination
- c) only flexion becomes weaker
- d) Supination becomes weaker than flexion (تبييض)
- e) No change

4) Ulnar nerve compression symptoms is present in high percentage of patients with: Select one:

- a) Rotator cuff tendonitis
- b) Medial epicondylitis
- c) Lateral epicondylitis
- d) Frozen shoulder
- e) De quervain disease

2) The biceps tendon reflex is primarily transmitted through which of the following primary nerve roots; Select one:

- a) C1, C2
- b) C2, C3
- c) C3, C4
- d) C5, C6
- e) C7, C8

3. Patient suffered from shoulder dislocation that was seen on x ray and was treated appropriately, after a week he come back with anterior shoulder dislocation , his lateral arm sensation is intact which is the appropriate imaging ?

- a) MRI
- b) Ultrasound of the shoulder joint
- c) Repeat the x ray
- d) Ct ? (to see if there are other accompanying fractures or soft tissue injuries?)

3) External rotation of the shoulder is the function of which of the following muscles; Select one

- a) Subscapularis, teres minor
- b) Infraspinatus, teres minor
- c) Subscapularis, infraspinatus
- d) Supraspinatus, Biceps
- e) Supraspinatus, Deltoid

4) Bankart lesion is Separation of the glenoid labrum from the margin of the glenoid of; Select one

- a) Superior margin
- b) Posterior superior margin
- c) Posterior-inferior margin
- d) Anterior-superior margin
- e) Anterior-inferior margin

Which of the following test is NOT correctly matched

- a. Lift off test; supraspinatus muscle
- b. Apprehension test; stability of the shoulder
- c. Press belly test; subscapularis
- d. Speed test; Biceps tendon
- e. Yergason test; Biceps tendon

All of the following are true regarding golfer elbow EXCEPT:

- a. May be associated with ulnar nerve compression symptoms
- b. **The pathology is mainly in the common flexor supinator tendon**
- c. Characterized by localized tenderness over the medial epicondyle
- d. Management starts with conservative treatment such as NSAID and bracing
- e. It is less common than tennis elbow

Hill-sachs lesion is:

- a. Tear of the middle glenohumeral ligament.
- b. Detachment of the labrum and capsule from the posterior rim of the glenoid.
- c. Detachment of the labrum and capsule from the anterior rim of the glenoid.
- d. Indentation on the anterolateral aspect of the humeral head
- e. **Indentation on the posteriolateral aspect of the humeral head**

Movements of entrapment Test of shoulder are :

abduction, internal rotation , flexion

1. Rotator cuff, all except :

teres major

2. One is not a rotator cuff muscle:

- a. Teres minor
- b. Teres major****
- c. Subscapularis
- d. Lattissimusdorsi ****

1- the most common dislocation in the shoulder is :

- a. Interior
- b. posterior
- c. Superior
- d. anterior ****
- e. Intra thoracic

2- All the following about Monteggia fracture dislocation are correct except :

- a. It is fracture proximal ulna with head of radius dislocation
- b. The head of radius usually dislocated anteriorly
- c. It can happen in any age
- d. It may need open reduction and internal fixation
- e. It is fracture distal ulna with inferior radio – ulnar dislocation ****

11. Carpenter , he noticed that while he is using the hammer the lateral side of his elbow is painful , other sign of radial nerve injury , injury to :
injury to ECRB

12. Fail to make "OK" sign :
lesion of the anterior interosseous nerve

Septic arthritis

4. male patient presented to emergency with suspected septic hip, Temp : 39.5, ESR is 60 ,his WBC is 8000, and he is unable to walk normally,crp is 80 his Kocher criteria is
- a) One
 - b) Two
 - c) **Three**
 - d) Four
 - e) Five

5. Which of the following isn't in septic arthritis treatment ?
- a) Splintage in functional posture
 - b) Iv antibiotics
 - c) **Aspiration of the joint with antibiotics injection**
 - d) Arthrotomy
 - e) Analgesia

- 5) **Three, years male patient presented to emergency with suspected septic hip, ESR is 50,his WBC is 8000, and he is able to walk normally, his Kocher criteria is**
- a) One
 - b) **Two**
 - c) Three
 - d) Four
 - e) Five

Kocher criteria for septic hip includes all of the following except:

- a. ESR
- b. CRP**
- c. weight bearing
- d. Temperature
- e. WBC count

Kocher criteria:

- non weight bearing
- WBC > 12.00
- ESR > 40
- temp > 38.5

3- All the following about acute septic arthritis in the knee in a young child are correct except:

- a. The is localized severe pain and tenderness
- b. **painless movement of the knee****
- c. High fever and leucocytosis are present
- d. the general condition is bad
- e. turbid synovial edhesion is present

Osteomyelitis

6. 12-year-old boy presented with continuous right thigh pain of three weeks duration, associated with fever and weight loss. No history of trauma. Physical examination revealed swelling, hotness of the right thigh. All of the following can be seen on the X ray of this patient EXCEPT:

- a) Thinning of the cortex
- b) Extension to the surrounding tissues
- c) Onion skin appearance
- d) Sunburst appearance
- e) Codman triangle

6) Regarding Acute osteomyelitis, which of the following is true; Select one:

- a) Requires operative debridement in the majority of cases.
- b) Requires antibiotic therapy for 4 to 6 weeks.
- c) Never causes growth disturbance of the involved bone.
- d) Occurs in the diaphysis in most cases
- e) Occurs always via Hematogenous Route

About Osteomyelitis , Organism :

Staph. Aureus

4- All the followings are correct about acute hematogenous osteomyelitis except :

- a. the most common micropathogen is staphylococcus aureus
- b. It is a metaphyseal lesion
- c. It usually happens in children
- d. It does not affect the general condition of the baby **
- e. Needs admission, I.V antibiotics , Incision and Drainage

Hip Fractures

1- 40-year-old male patient involved in road traffic accident presented to the emergency department by the civil defense, he was conscious oriented, his blood pressure was 90/60. Upon resuscitation, physical examination and proper imaging. He has isolated open book pelvis fracture. The mechanism contributing to his fracture is?

- a) Anteroposterior compression.
- b) Lateral compression.
- c) Vertical shear.
- d) Crushing injury.
- e) Dashboard injury.

2- Which of the following is not type of acetabular fracture classification; Select one: مكرر

- a) Posterior column and posterior wall
- b) Transverse and posterior wall
- c) Both column
- d) distal tuberosity
- e) T-shaped

3- 80 years old male fall on the bathroom and come to ER with left hip pain and unable to bear weight, on x ray no fracture was found what is the next appropriate step?

- a) Give analgesia and send him home
- b) Refer to the clinic after 1 week for reevaluation
- c) Do MRI
- d) ESR AND CRP

4- One is not of the hip at risk signs; Select one: مكرر

- a) Gage sign
- b) Calcification lateral to the epiphysis
- c) Lateral subluxation of the femoral head
- d) Vertical proximal femoral physis
- e) Diffuse metaphyseal cysts

5. 13-year-old patient presented with right leg pain that awakened him from sleep, and relieved by pain medication, there was no history of fever or weight loss. X rays showed a small nidus surrounded by sclerotic bony reaction; the most likely location of this lesion is:

- a. Epiphyseal
- b. Metaphyseal
- c. Diaphyseal
- d. Subchondral
- e. Apophyseal

6. 12-year-old boy presented with continuous right thigh pain of three weeks duration, associated with fever and weight loss. No history of trauma. Physical examination revealed swelling, hotness of the right thigh. All of the following can be seen on the X ray of this patient EXCEPT:

- a. Thinning of the cortex
- b. Extension to the surrounding tissues
- c. Onion skin appearance
- d. Sunburst appearance
- e. Codman triangle

7. Kocher criteria for septic hip includes all of the following except:

- a. ESR
- b. CRP
- c. weight bearing
- d. Temperature
- e. WBC count

8. Why we do ORIF for fracture of femur neck:

to prevent AVN of head

9. intertrochanteric fix:

conservative, fixation with dynamic screw

10. case: Male with DM o HTN etc. Came with hip pain on Xray - fracture line bw GT & LT... TTT?

Intertrochanteric fix, ttt dynamic hip screw

11. for a total hip replacement posterior approach, the pt must avoid:

flexion, adduction, internal rotation

12. All of the following are factors that increase mortality of hip fracture patient EXCEPT: Select one:

- a) Intertrochanteric fracture
- b) Female gender
- c) C. ASA III
- d) Age >85 years
- e) Operative delay of >2 days

13. intertrochanteric fx :

conservative , fixation with dynamic screw

Open Fractures

1. A patient presents to the emergency department with an open fracture. the wound measures 11 cm, that needed surgical intervention during which they found the radial artery was injured /cut and fixed it. Based on the Gustilo-Anderson classification, this wound is graded as:

- f) Type I
- g) Type II
- h) Type IIIA
- i) Type IIIB
- Type IIIC

2. A patient presents to the emergency department with a segmental tibia fracture as a result of a gunshot injury with a 1-cm entrance wound. After appropriate irrigation and debridement, the wound measures 11 cm, there is no arterial injury, and the wound edges are easily approximated. Based on the Gustilo-Anderson classification, this wound is graded as:

- a. Type I
- b. Type II
- c. Type IIIA
- d. Type IIIB
- e. Type IIIC

3. patient came to ER with open fracture in his (arm?) and wound 4 cm that needed surgical intervention during which they found the radial artery was injured /cut and fixed it:

III c

4. all must be done in urgent open wound management except
Fixation

Compartment Syndrome

1. One of the following is most reliable about compartment syndrome:

- a. absence of dorsalis pedis on Doppler
- b. tense swelling on palpation

c. PAIN **

2. In compartment syndrome what to do

(السؤال بال2014 وما كان مكتوب لا خيارات ولا اجابة)

Anatomy

1- The triceps tendon reflex is primarily transmitted through which of the following primary nerve roots; Select one:

- a) C1, C2
- b) C2, C3
- c) C3, C4
- d) C5, C6
- e) **C7, C8**

2- Which of the following muscle is supplied by the ulnar nerve:

- a. Opponens Pollicis
- b. Abductor Pollicis Brevis
- c. **Adductor Pollicis**
- d. First and second lumbrical muscles
- e. Flexor Pollicis longus

Others

All are Complications Of cast splintage Except.

- a. **High risk of infection in closed fractures.**
- b. Immobility can lead to. DVT, stiffness.
- c. Tight cast
- d. Pressure sores.
- e. Skin abrasion or laceration, during cast removal.

Tip-toes gait after difficult labor , what is dx with best initial therapy :

Cerebral palsy- physiotherapy

CP most common type :

spastic diplegia

Circumduction gait, wrong about it : **Extention of the elbow, wrist, and fingers**

Rheumatoid arthritis all of the following are true except :

It is primarily a cartilage disease

Poliomyelitis , all are true except :

transmitted primarily via the fecal-oral route