PATHOLOGY & CLINICAL MEDICINE

**Use the case below to answer questions 1 & 2**

John Kapingili is an eight (8) year old boy from Kamagambo village sustained a supracondylar fracture of the right humerus after a fall from a guava tree eight days ago. He was managed conservatively at the local sub-county hospital a week ago. He presents to the out-patient department with a swollen upper limb and in pain. X-rays reveal a re-displacement of the fracture.

1. What is the appropriate management of John’s Fracture?
2. Immobilization in a backslab for six weeks with gentle shoulder exercises
3. **Internal fixation using percutaneous pins**
4. External fixation with an external fixator
5. A full length P.O.P. immobilization with elbow at right angle and forearm in neutral position for six weeks
6. What is the common complication of John’s fracture?
7. Injury extensor pollicis tendon
8. Non –union of bone fragmants
9. Delayed union
10. **Damage to the brachial artery**

**Use the case below to answer questions 18 & 19**

Vivian Kweli - 2years old is Mr. Johnston Kweli’s first born. She is bought one morning to the out-patient department in pain around the elbow joint that her Mother cannot explain. The only history given to you is that she was lifted up by her father from the wrist a day ago as he arrived from safari. An old woman neighbor complained about the lifting and Vivian’s mother is associating her daughter’s pains to the neighbor’s bad mouth.

1. What is Vivian’s diagnosis?
2. Anterior dislocation of elbow
3. Fracture of the olecranon process
4. Monteggia fracture dislocation
5. **Subluxation of radial head**
6. What is the appropriate management of Vivian’s diagnosis?
7. Reduction under anesthesia and immobilization in a U-slab
8. **Pushing forearm upward with alternating movements of pronation and supination then rest in arm sling for 2 weeks**
9. Internal fixation with contour plate and immobilization in P.O.P. for 4weeks
10. Surgical removal of the olecranon process and fixing the fixing the tendon of triceps brachii to the stump.
11. The following are stages in bone healing; arrange them in order of occurrence from the first to the last.
12. Hematoma formation
13. Callus formation.
14. Sub-periosteum and endosteal cellular proliferation.
15. Consolidation /ossification.
16. Remodeling
17. **1, 3,2,4,5.**
18. 1, 2, 3, 4, 5.
19. 2, 1, 3, 5, 4.
20. 5, 4,3,2,1
21. Pelvic avulsion fractures are increasingly common in professional athletes. Which is the commonest site of these fractures?
22. The pelvic pubic symphysis.
23. The pelvic ramus.
24. **The anterior superior iliac spine.**
25. The ischio-pubic ramus.
26. Which of the following methods of treatment is appropriate for a separated pubic symhysis?
27. Russel’s skeletal traction.
28. **Hip spica.**
29. Long tranfixation screw.
30. Hammock.
31. What is the cause of shock as a complication to pelvic fractures?
32. Injury to the urinary bladder
33. **Injury to major blood vessels.**
34. A separated pubic symphysis.
35. Injury to ureter.
36. The principle objective of treatment of uncomplicated fracture of the pelvis is.
37. Repair of internal injury.
38. Prevention of further injury.
39. Prevention of pain.
40. **Relief of pain.**

1. A middle-aged adult suffered a pelvic fracture with disruption of the pelvic ring after a R.T.A. A consultant surgeon gives a diagnosis of pelvic fracture with rupture of bladder. Which of the following examination results confirmed his diagnosis of a ruptured bladder?
2. Incontinence of urine.
3. Inability to insert a catheter.
4. Pain on insertion of a catheter.
5. **A few drops of blood–stained urine obtained from catheterization.**
6. In which category below are femoral neck fractures categorized?
7. Avulsion injuries.
8. High violence injuries.
9. **Fragility injuries.**
10. All of the above.
11. In which age groups are femoral tronchanteric fractures common?
12. **Elderly people of above 75 years old.**
13. Middle age males.
14. Sporting injury in teens.
15. Young adults of both genders.
16. What is the characteristic displacement of the distal fragment in a supracondylar fracture of femur?
17. **Anterior.**
18. Postero-lateral.
19. Posterior.
20. Vertical impaction to the proximal fragment.
21. For how long should an un-displaced femoral condyle facture be immobilized?
22. 4/52.
23. 16/52.
24. 6/52.
25. **8/52.**
26. T-shaped femoral condyle fractures are best internally immobilized by?
27. Krishner wiring.
28. A t-plate and screws.
29. A long leg P.O.P.
30. **A right angled compression screw-plate.**
31. What is the cause of joint stiffness in T-shaped femoral condyle fractures?
32. **Intra-articular and intra-muscular adhesions**.
33. Muscular spasms.
34. Nerve injuries
35. Muscular atrophy.

***Use the text below to answer question 17.***

An accident victim presents at your hospitals out-patient department with the following:

* Pain and swelling of his right knee.
* Tenderness at the anterior aspect of his right knee.
* Restricted movements of the knee joint
* Inability to bear weight on the same limb.
1. What is the likely diagnosis of this patient?
2. Fracture of the femoral shaft.
3. Supracondylar fracture femur
4. **Fracture patella**
5. Injury to the popliteal artery
6. A radiograph taken from an athlete who complained from persist pain at the medial side of his knee from an old injury showed a plaque of new bone at the medial epicondyle.

What is the diagnosis of this patient?

* 1. Torn medial ligament of knee.
	2. Myositis ossificans.
	3. **Pellegri-stieda’s diseses.**

d) Old fracture patella.

1. What is the appropriate Physiotherapy management of the condition in 18 above?
	1. **Active mobilizing and muscle strengthening exercise.**
	2. Passive physiological exercises.
	3. Static quadriceps exrcises.
	4. Rest on bed for 2/52.

***Using your knowledge of injuries of knee, answer questions 20 & 21.***

1. Arthroscopy:
2. **Is indicated for diagnosis of torn cruciate ligament.**
3. Is indicated for diagnosis of torn medial ligament of the knee.
4. Is best done in presence of haemarthrosis.
5. Is an advanced and effective treatment for injuries to the

 ligaments of the knee joint.

1. Locking
2. Is mostly associated with torn cruciate ligaments.
3. Is an important feature of torn lateral ligament of knee.
4. Is an important feature of torn medial ligament of knee.
5. **Is the result of interposition of meniscal fragment**

 **between the articular surfaces.**

***Use the case below to answer r questions 18 and 19.***

A renowned athlete sustained an injury to his left knee that presented with the following upon examination:

- Effusion of the joint.

- Tenderness along the medial aspect of the knee joint.

- Wide medial side gaping of knee on abduction of tibia upon femur.

- Blood-stained fluid on aspiration.

1. What is the diagnosis of this athlete?
2. **Tear of the medial ligament, including the cruciates.**
3. Tear of the medial ligament alone.
4. Tear of the lateral ligament including the cruciates.
5. Tear of the lateral ligament alone.
6. What is the appropriate treatment of the diagnosis in 17 above?
7. Active-assisted exercises after swelling subsides.
8. **Surgical exploration and repair of the affected ligaments.**
9. Immobilization in P.O.P.x 2/52.
10. Passive physiological exercises immeadiately.
11. Inability to extend knee, pain at the antero-medial aspect of joint and a history of a twisting injury is a characteristic clinical feature of?
12. **Medial meniscus injury.**
13. Lateral meniscus injury.
14. Soft tissue injury.
15. Tear of the rectus femoris tendon.
16. What is Osgood-Schlatter disease?
17. A femoral condyle degenerative disease.
18. **A condition associated with activity related pain a few inches below the patella.**
19. Fracture of the tibial turbercle
20. A degenerative disease of the hip.
21. What is the management of the condition in 20 above?
22. Immobilization in a full leg P.O.P. x 4/52.
23. Internal immobilization with plate and screw.
24. Active exercises should be encouraged as early as possible.
25. **Rest, Ice, Compression and Elevation.**

John, an athlete of repute injured his left knee during an international meet a week ago. On examination he had a positive Lachmans test and when knee is flexed at 900, the tibia could be drawn excessively forwards upon femur.

1. From the above case, what is John’s diagnosis?
2. Posterior cruciate tear.
3. Medial ligament subluxation.
4. **Anterior cruciate tear.**
5. Medial meniscal tear.
6. What is the current trend of treatment of John’s diagnosis?
7. **Immediate direct suturing**.
8. Immobilization in a long leg P.O.P.x 6/52.
9. Rest for one week.
10. Immediate active-exercises
11. Genu valgum, joint stiffness and late osteoarthritis of the knee joint are best associated with
12. Depressed plateau fracture without fragmentation.
13. Compression fracture of medial condyle with fragmentation.
14. Compression fracture of lateral condyle with fragmentation.

d) **Oblique shearing fracture of the lateral condyle**.

1. Fracture shaft of tibia caused by angulatory force.
2. Have a spiral pattern.
3. Tend to be comminuted fractures.
4. Are often compound fractures.
5. **Are usually associated with similar fracture of the fibular.**
6. Habitual dislocation of the patella.
7. Affects mainly boys aged 10 – 15 years.
8. Is as a result of bi-partite patella.
9. **Is congenital and as a result of underdevelopment of the patella.**
10. Is uncommon and occurs only in adults.
11. What type of force causes the aviator’s astragalus fracture?
	1. **An upward force driving the head of talus upon the articular surface of tibia**.
	2. A vertical force on the tuber calcanei.
	3. A twisting force on the talo-tibial mortise.
	4. An oblique force on the medial malleolus

*Use the case below to answer questions 33 -35 below*

 A 26 year old footballer suffered a twisting injury to his left 2/7 ago during a competitive soccer match. On examination he presents with the following:

* Tenderness of antero-medial left knee joint.
* Inability to extend his left knee fully.
* Slight joint effusion
* Slight wasting of the quadriceps

1. What is the diagnosis of this player?
2. Medial ligament strain
3. Lateral ligament tear
4. **Medial meniscus tear**
5. Lateral meniscus tear
6. What is the correct treatment of this case?
7. Immobilization in P.O.P. for 6/52
8. **Excision of the fragment**
9. SWD weekly for 2/12
10. Non of the above
11. What is a major complication of the diagnosis in 30 above?
12. **Osteoarthritis**
13. Paralysis of the quadriceps
14. Habitual dislocation of the knee
15. All of the above