

## Vikas Khanduja

The FRCS (Tr & Orth) examination has three components: MCQs, Vivas and Clinical Examination. The Vivas are further divided into four sections comprising Basic Science, Adult Pathology, Hands and Children's Orthopaedics and Trauma. The Clinical Examination section is divided into Upper and Lower Limb cases. The aim of this section in the Journal is to focus specifically on the trainees preparing for the exam and to cater to all the sections of the exam every month. The vision is to complete the cycle of all relevant exam topics (as per the syllabus) in four years.

### Advisor:

Mr David Jones

## MCQs – Adult Pathology – Single Best Answer

- Which of the following organisms is currently least likely to be responsible for septic arthritis of the hip in a child?
  - Enterobacter species
  - Haemophilus influenzae*
  - Methicillin resistant *Staphylococcus aureus*
  - Staphylococcus aureus*
  - Streptococcus group A
- Which of the following quadrants of the acetabulum are most at risk for injury by screws during fixation of an uncemented total hip replacement?
  - Anterior-posterior and posterior-inferior
  - Posterior-superior and posterior-inferior
  - Anterior-superior and posterior-superior
  - Anterior-inferior and posterior-superior
  - Anterior-superior and anterior-inferior
- Most post-operative deep infections in total hip replacement result from?
  - Airborne bacteria in the operating room
  - Post-operative wound contamination
  - Intra-operative septicaemia
  - Contaminated acrylic cement
  - Inappropriate antibiotic cover
- A 72-year-old woman is noted to have sciatic nerve palsy, on the post-operative ward round, following a cemented total hip replacement. The immediate management of this patient would involve:
  - Urgent nerve conduction studies
  - Immediate exploration
  - Referral to the nearest Peripheral Nerve Injuries Unit
  - Observation
  - Urgent MRI scan
- Eliciting the impingement test in the hip involves which of the following manoeuvres?
  - Flexion, abduction and external rotation
  - Flexion, adduction and internal rotation
  - Flexion, adduction and external rotation
  - Flexion, abduction and internal rotation
  - Extension, adduction and internal rotation

## Vivas

### Adult Pathology

A 37-year-old woman presents with progressively worsening pain, severe restriction of movement and deteriorating function in both her hips along with an awkward limp with apparent leg-length discrepancy. This is her radiograph. (Fig. 1).



Fig. 1

- What is your diagnosis?
- How would you stage this disease and what classification system would you use?
- What treatment would you offer her at this stage?
- What kind of prosthesis will you use if any and why?
- What bearing surface will you use and why?
- What are the potential problems that you could encounter while performing a total hip replacement for this condition?
- What are the possible complications?

### Trauma

A 38-year-old woman slipped on ice landing on her outstretched hand and sustained this injury. This is the radiograph taken in A & E. (Fig. 2).

- What is the diagnosis?
- Describe the abnormality in the radiograph.
- How would you classify this fracture?
- How would you like to treat this fracture?
- What is the evidence to support your answer?
- What is the expected outcome?
- What is the diagnosis? (Fig. 3)
- How would you manage this condition?



Fig. 2



Fig. 3

## Hands

A 32-year-old woman presents with insidious onset of pain in her wrist. These are her radiographs (Figs 4a and 4b).

1. What is the diagnosis?
2. What other investigations would you request?
3. How would you stage this condition?
4. How would you manage this condition at this stage?



Fig. 4a



Fig. 4b

5. What is the diagnosis? (Fig. 5)
6. What is your plan of management?

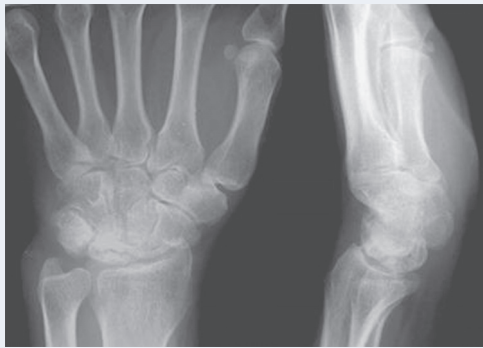


Fig. 5



Fig. 6

## Basic Science

1. Illustrate a free-body diagram of the knee joint.
2. Describe the kinematic behaviour of a normal knee.
3. What are the mechanical and clinical differences between a posterior stabilised and cruciate retaining total knee replacement?
4. How does each one affect the kinematics of a total knee replacement?
5. What kind of a knee replacement is this? (Fig. 6) What is the principle of this system?
6. How does this affect the kinematics of the knee?
7. What is the principle behind the use of a mobile bearing total knee replacement?

## Children's Orthopaedics

1. What is the diagnosis (Fig. 7)?
2. Describe the radiographic signs to support your opinion.

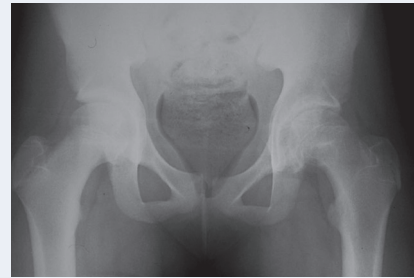


Fig. 7

3. What is this condition (Fig. 8)?
4. What type is it? How would you treat it?

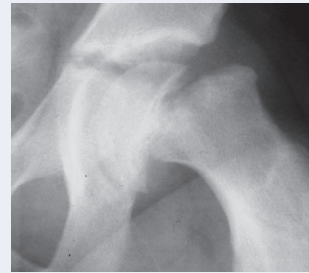


Fig. 8

5. What is this condition (Fig. 9)?
6. Name three predisposing pathological conditions.

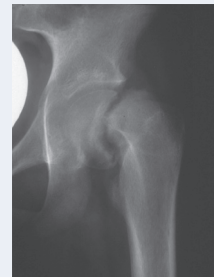


Fig. 9

7. What is the diagnosis (Fig. 10)?
8. Explain how you arrived to this conclusion.



Fig. 10