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European Board of Hand Surgery (EBHS) Examination Questions

Question 1

Pronator teres

A	The humeral head arises from the lateral supracondylar ridge	T/F
B	The ulnar head arises from the coronoid process of the ulna	T/F
C	Inserts on the flexor surface of the radius in the middle third	T/F
D	Is a weak flexor of the elbow	T/F
E	Is innervated by the anterior interosseous nerve.	T/F

Question 2

Osteochondritis and avascular necrosis in the hand

A	Kienböck's disease affects the scaphoid	T/F
B	Preiser's disease affects the lunate	T/F
C	Mauclaire's disease most commonly affects the third metacarpal head	T/F
D	Mauclaire's disease may be bilateral	T/F
E	Mauclaire's disease can occur in children and in adults	T/F

Question 3

Seymour fracture

A	Is technically a compound fracture	T/F
B	Inadequate treatment of the injury may lead to growth arrest	T/F
C	The sterile matrix is often interposed in the fracture	T/F
D	Failure to treat adequately may lead to osteomyelitis	T/F
E	The germinal matrix and nail bed laceration may be exposed via incisions on either side of the dorsal nail fold	T/F

Answers

Question 1

A	The humeral head arises from the lateral supracondylar ridge	F
B	The ulnar head arises from the coronoid process of the ulna	T
C	Inserts on the flexor surface of the radius in the middle third	F
D	Is a weak flexor of the elbow	T
E	Is innervated by the anterior interosseous nerve.	F

Pronator teres has two heads. The humeral head arises from just above the medial epicondyle and via the common flexor origin. The ulnar head arises from the medial aspect of the olecranon process. The median nerve runs between the two heads. The muscle inserts via a broad flat tendon onto the lateral aspect of the middle third of the radius. It is a weak elbow flexor (Yu et al., 2004, p. 370). It is innervated by the median nerve directly. One branch may arise above the medial epicondyle in approximately 50% of the population (Yu et al., 2004, p 497)

Question 2

A	Kienböck's disease affects the scaphoid	F
B	Preiser's disease affects the lunate	F
C	Mauclaire's disease most commonly affects the third metacarpal head	T
D	Mauclaire's disease may be bilateral	T
E	Mauclaire's disease can occur in children and in adults	T

Kienböck's disease is an avascular necrosis of the lunate. Preiser described a 'rarefying osteitis' of

the scaphoid (Preiser, 1910), but Kallen and Strackee (2014) suggested that this is incorrect and that Preiser's original cases all show a fracture of the scaphoid. The article is worth reading for an insight into a rare condition.

Mauclaire's disease (sometime incorrectly called Dieterich's disease), first described in Paris in 1928 (Erne, 2012; Green, 2010), is an osteochondritis or avascular necrosis of the metacarpal head. It most commonly affects the middle finger and may be bilateral. The exact cause is uncertain. Trauma, systemic lupus erythematosus and steroid use have been implicated in its aetiology. As it is such a rare condition, the best method of treatment remains undefined. Conservative treatment (Wijeratna and Hopkinson-Woolley, 2012), autograft (Erne 2012) and mosaicplasty (Maes et al., 2010) have been described.

Question 3

A	Is technically a compound fracture	T
B	Inadequate treatment of the injury may lead to growth arrest	T
C	The sterile matrix is often interposed in the fracture	F
D	Failure to treat adequately may lead to osteomyelitis	T
E	The germinal matrix and nail bed laceration may be exposed via incisions on either side of the dorsal nail fold	T

Seymour fracture is a fracture of the terminal phalanx with an overlying nail bed laceration (Seymour, 1966). Before closure of the distal phalangeal epiphysis, the fracture line is usually entirely through the metaphysis, 1 to 2 mm distal to the growth plate. In adults, the fracture line is just distal to the insertion of the extensor tendon (Al-Qattan, 2001). It is thus a compound fracture. Treatment should consist of careful debridement, removal of any soft tissue (commonly the germinal matrix) in the fracture and reduction. Left untreated, there is a risk of nail dystrophy, physeal arrest (Al-Qattan suggests this is usually a complication of infection) and osteomyelitis.

Green (2010) recommends removal and subsequent repositioning of the nail plate but Al-Qattan (2001) recommends leaving the nail plate attached and using this for skeletal stabilization, which, in his experience, is sufficient. K-wiring is optional, depending on perceived patient compliance and stability of the reduction.

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