Hand OITE Questions for NYSSH Update Course 2006

Lecture 1: Boutonniere-Swan Neck and the Intrinsic

1) OITE 2004 Question 71
A 40-year-old woman has a chronic boutonniere deformity of the proximal interphalangeal (PIP) joint of her middle finger with a preserved joint space. She lacks 45 degrees of active extension but has full passive extension of the PIP joint. Treatment should consist of

1- central slip tenotomy
2- volar plate release
3- lateral band relocation
4- arthrodesis of the PIP joint
5- arthroplasty of the PIP joint

Answer: 3


2) OITE 2005 Question 164.
An otherwise healthy 60 year old man reports the sudden inability to extend his middle finger. Examination reveals that the metacarpophalangeal joint of the finger will not actively or passively extend beyond 45 degrees of flexion. Proximal interphalangeal joint motion is unrestricted, and composite finger flexion is to the distal palmar crease. Radiographs are normal. Treatment of this condition should consist of

1) release of A1 pulley
2) relocation of the common extensor tendon
3) reconstruction of the radial sagittal band
4) Exploration of the metacarpophalangeal joint radial collateral ligament
5) Radical flexor tenosynovectomy

Answer: 4


3) OITE 2001 Question 15
The occurrence of restricted passive flexion of the proximal interphalangeal joint during extension but not flexion of the metacarpophalangeal joint is most indicative of

1- flexor tendon adhesions.
2- extensor tendon adhesions.
3- intrinsic contracture.
4- quadrigia effect.
5- a lumbrical plus finger.

Answer: 3


4) OITE 2001 Question 39
A basketball player sustained blunt trauma to his long finger. Examination reveals swelling and tenderness at the proximal interphalangeal (PIP) joint. He is able to extend the digit and flex the PIP and distal interphalangeal (DIP) joints. When the PIP joint is bent 90 degrees over the edge of the table and middle phalanx extension is manually blocked, the DIP joint goes into rigid extension when the patient attempts to extend his finger. Management should consist of:

1- surgical repair of the oblique retinacular ligament.
2- surgical repair of the central slip.
3- a dynamic extension outrigger splint.
4- buddy taping and early active motion.
5- extension splinting of PIP joint

Answer: 5


5) OITE 2000 Question 72
Formation of a boutonniere deformity requires injury to not only the central tendon insertion at the level of the proximal interphalangeal joint, but also injury of the

1- sagittal bands.
2- lateral bands.
3- conjoined lateral bands.
4- triangular ligament.
5- oblique retinacular ligament.

Answer: 4


6) OITE 1999 Question 51
A 35 year old executive jammed his index finger against a wall while playing squash.
Examination reveals tenderness over the dorsum of the DIP, a lack of DIP extension, and the fingertip is held flexed at about 45 degrees. Radiographs show no evidence of fracture, and the joint is reduced. Management should consist of

1- direct surgical repair of the extensor tendon.
2- arthrodesis of the DIP.
3- buddy tapping the distal aspect of the finger to the adjacent digit, followed by early active motion.
4- splinting the DIP in hyperextension for 6 weeks.
5- splinting the DIP for 3 weeks, followed by aggressive therapy for mobilization of the joint.

Answer: 4


**Lecture 2: Flexor Tendon Injuries**

1) OITE 2005 Question 21
The ideal flexor tendon rehabilitation protocol that minimizes peritendonous adhesions includes

1- Casting for 6 weeks.
2- A synergistic wrist and digit motion rehabilitation protocol.
3- Dorsal block splint with unrestricted active finger flexion.
4- Dynamic extension outrigger splinting.
5- Early aggressive active motion and a strengthening program.

Answer 2

Ref: CORR, 2003;253-259

2) OITE 2005 Question 246.
A 21 year old left handed college student was playing rugby 3 days ago and felt the sudden onset of pain in his right ring finger when another player pulled away from him. A clinical photograph is shown in Figure 86. What is the most likely diagnosis?

1- Volar plate avulsion of the proximal interphalangeal joint
2- Avulsion of the distal flexor digitorum profundus tendon
3- Musculotendinous rupture in the forearm
4- Stretch injury to the ulnar nerve at the wrist
5- Ulnar artery thrombosis
6- [see figure in another email]

Answer: 2- Avulsion of the distal flexor digitorum profundus tendon

3) OITE 2004 Question 10
A partial laceration of the flexor tendon should be repaired when the percentage of tendon lacerated is more than

1- 10%
2- 20%
3- 40%
4- 60%
5- 80%

Answer: 3

Ref: Al-Qattan, FRCSC. J Hand Surg 2000;25A:1118-1121

4) OITE 2003 Question 10
Active mobilization following flexor tendon repair is best accomplished with the wrist in

1) Flexion and the metacarpophalangeal joints in flexion
2) Flexion and the metacarpophalangeal joints in extension
3) Neutral and the metacarpophalangeal joints in extension
4) Neutral and the metacarpophalangeal joints in flexion
5) Extension and the metacarpophalangeal joints in flexion

Answer: 5


5) OITE 2003 Question 126
What is the major advantage of allowing early active motion of a repaired zone II flexor tendon injury?

1- Increased tendon excursion
2- Greater repair strength
3- Less postoperative pain
4- Better patient compliance
5- Faster tendon healing

Answer: 1


6) OITE 2002 Question 70
A 4-year-old girl undergoes repair of both flexor tendons in zone II. Initial postoperative physical therapy should consist of

1-被动移动仅。
2-主动伸展和被动屈曲移动。
3-主动位置和模具移动。
4- immobilization.
5- unrestricted active mobilization.

Answer: 4


7) OITE 2001 Question 5
What is the single most important factor that determines the strength of a flexor tendon repair?

1- Caliber of the suture
2- Type of stitch configuration
3- Type of stitch material
4- Number of suture strands that cross the repair site
5- Use of an epitendinous suture

Answer: 4


8) OITE 2001 Question 79
A 45-year-old man underwent a zone II flexor tendon repair. What type of splint will allow for the greatest safe excursion of the repaired tendons in the first 6 weeks?

1- Splint with continuous passive motion device
2- Static progressive splint
3- Dynamic splint
4- Dynamic splint with a palmar pulley
5- Dynamic splint with a hinge allowing for motion at the wrist

Answer: 5


Lecture 3: Peripheral Nerve Repair
1) OITE 2005 Question 65
In a second-degree nerve injury or axonotmesis, axon regeneration is almost always complete because which of the following structures remains intact?

1. Myelin sheath
2. Perineurium
3. Endoneurium
4. Internal epineurium
5. External epineurium

Answer: 3


2) OITE 2004 Question 257
What is the primary function of the peripheral nerve epineurium?

1. provides extension of the blood-brain barrier
2. provides a connective tissue sheath around each nerve fascicle
3. participates in the formation of Schwann cell tubes
4. limits diffusion within the intraneural environment
5. cushions fascicles against external pressure

Answer: 5

3) OITE 2002 Question 209
Which of the following structures is primarily responsible for the tensile strength and elasticity of a peripheral nerve?

1- Axon
2- Perineurium
3- Endoneurium
4- Internal epineurium
5- External epineurium

Answer: 2

Lecture 4: Compressive Neuropathy

1) OITE 2005 Question 55
An otherwise healthy 60-year-old woman has had intermittent pain, numbness and tingling in the thumb, index and middle fingers of her right hand for the past 6 months. She reports that these symptoms awaken her from sleep nightly. Two cortisone injections
into the carpal tunnel temporarily resolve her symptoms for 2-4 weeks after each injection. Electrodiagnostic studies are normal. What is the best course of action?
1. Repeat electrodiagnostic studies
2. MRI of the cervical spine
3. Carpal tunnel release
4. Release of the median nerve in the proximal forearm
5. Referal to a pain clinic

Answer: 3


2) OITE 2005 Question 195
A 65-year-old woman who has a distal radius fracture and mild parasthesias in the median nerve distribution undergoes open reduction and internal fixation through a limited Henry approach. One day after surgery, she reports dense numbness in the same distribution and worsening wrist pain. Pre- and postoperative radiographs are shown in Figures 68a through 68d. Management should now consist of:

1. Immediate hardware removal and internal fixation
2. Immediate carpal tunnel release
3. Immediate nerve conduction velocity studies
4. Carpal tunnel release in 6 weeks if her symptoms remain unchanged
5. Nerve conduction velocity studies in 6 weeks if her symptoms remain unchanged

Answer - 2. Immediate carpal tunnel release


3) OITE 2004 Question 210
Following open carpal tunnel release, grip strength is expected to return to preoperative levels by how many weeks?

1. 4
2. 6
3. 8
4. 12
5. 20

Answer: 4

4) OITE 2003 Question 208
What percentage of patients who receive a steroid injection for carpal tunnel syndrome will experience at least transient relief of their symptoms?

1- 0%
2- 20%
3- 50%
4- 80%
5- 100%

Answer: 4

5) OITE 2002 Question 104
A 60-year-old woman who has had pain and numbness in her thumb, index, and long fingers underwent an uneventful open carpal tunnel release. Postoperatively, she reports complete resolution of her symptoms but now notes progressive thenar atrophy that was not present prior to surgery. What is the most likely cause of this finding?

1- Incomplete release of the transverse carpal ligament
2- Cervical radiculopathy
3- Unrecognized Martin-Gruber anastomosis
4- Unrecognized transligamentous motor branch of the median nerve
5- Median artery pseudoanuerysm

Answer: 4

Ref: Lanz “Anatomical variations of the median nerve in the carpal tunnel”

6) OITE 2002 Question 172
What is the most likely cause of atraumatic entrapment of the ulnar nerve at Guyon’s canal?

1- Ulnar artery thrombosis
2- Ganglion cyst
3- Anomalous muscle
4- Schwannoma
5- Osteophyte

Answer: 2


7) OITE 2001 Question 47
A 25-year-old mechanic reports intermittent pain and tingling in the distal radial forearm and wrist with repetitive forceful use of the hand. Examination reveals mild tenderness
and paresthesias over the distal quarter of the radius with palpation. Active ulnar deviation of the wrist, Finkelstein’s test, and forceful pinching all increase the symptoms, as does wearing a watch or a tight shirt sleeve. What is the most likely diagnosis?

1- deQuervain’s tenosynovitis.
2- Radial Tunnel syndrome.
3- Intersection syndrome.
4- Lateral antebrachial nerve compression.
5- Superficial radial nerve compression.

Answer: 5

Ref: Green’s Operative Hand Surgery 1999, p 1404-47.

8) OITE 2001 Question 196
Which of the following is considered the most sensitive sensory test for detecting early carpal tunnel syndrome?

1- Light touch sensation
2- Pinprick sensation
3- Two-point discrimination
4- Moving two-point discrimination
5- Semmes-Weinstein monofilament

Answer: 5


Lecture 5: Fractures of the Hand

1) OITE 2005 Question 130
A 29 year-old woman injures her wrist in a fall from a ladder. Radiographs and a sagittal CT scan are shown in Figures 41a to 41c. Management should consist of:
1-Cast immobilization
2-cast immobilization with electric stimulation
3-open reduction and internal fixation
4-percutaneous fixation
5-vascularized bone grafting
Answer: 3-ORIF


OITE 2004 Question 21
2) A 35 year old woman who has had chronic pain in her palm after falling 6 months ago now notes persistent paresthesias in her ring and small fingers. Current radiographs are shown in figures 3a and 3b. Based of these findings treatment should consist of

1- arthrodesis of the 4th and 5th CMC joints.
2- lunotriquetral arthrodesis.
3- excision of the pisiform.
4- excision of the hook of the hamate.
5- neuroplasty of the ulnar nerve in Guyon’s canal.

Answer: 4


3) OITE 2003 Question 143
A 24-year-old hockey player has persistent, deep hypothenar palm pain after falling with his arm extended behind him. Plain radiographs and special radiographic views fail to show any abnormalities. What study will provide the most cost-effective diagnosis?

1- Bone scan
2- Ultrasound
3- CT
4- Electrodiagnostic studies of the median and ulnar nerves
5- MRI of the wrist
Answer: 3


4) OITE 2002 Question 273
A 19-year-old man has hand pain after striking a wall with a clenched fist. Examination reveals swelling and tenderness at the dorsum of the hand. AP and lateral radiographs do not show any obvious pathology. Which of the following imaging studies should be ordered next?

1- CT scan
2- 30 degree pronated view
3- 45 degree supinated view
4- Carpal tunnel view
5- Clenched fist view

Answer: 2

Ref: Bora FS et al: JBJS-A 1974;56:1459-1463

5) OITE 1998 Question 193
A 25-year-old amateur baseball player sustained a dorsal fx-dislocation of the PIP joint of his long finger. He underwent closed reduction with post-reduction radiographs showing the joint is well reduced with a fracture fragment involving 35% of the volar articular surface of the middle phalanx. Management should now include

1- ORIF.
2- buddy taping to the adjacent index finger.
3- early motion with application of a dynamic banjo splint.
4- application of a cast with the hand in the “safe position” for 3 weeks.
5- dorsal extension block splinting.

Answer: 5

6) OITE 1998 Question 198
A patient sustains a closed dorsal dislocation of the proximal interphalangeal joint of the middle finger without an associated fracture. Closed treatment results in a concentric stable reduction. The finger is not immobilized. Which of the following conditions may appear one year later?

1- Triggering
2- Lateral instability
3- Swan-neck deformity
4- Boutonniere deformity
5- Loss of distal interphalangeal joint flexion
Lecture 6: Distal Radius Fractures

1) OITE 2005 Question 46
A 40-year-old man reports unremitting ulnar-sided wrist pain after undergoing closed treatment of a distal radius fracture 3 years ago. Radiographs are shown in Figures 12a and 12b. What is the next most appropriate step in treatment?

1. distal radius corrective osteotomy
2. ulnar shortening osteotomy
3. wafer procedure
4. hemiresection arthroplasty
5. repair of the ulnar styloid nonunion

Answer: 4


2) OITE 2004 Question 233
A 32 year old carpenter who underwent casting of a distal radial fracture 8 months ago now reports wrist pain and diminished grip strength. Current radiographs are shown in Figures 75a and 75b. Management should now consist of
1- Proximal row carpectomy
2- Total wrist arthrodesis
3- Physical therapy
4- Ulnar shortening osteotomy
5- Distal radius corrective osteotomy

Answer: 5

3) OITE 2003 Question 49
A patient with neutral ulnar variance sustains an extra-articular fracture of the distal radius that heals with normal palmar tilt but with loss of radial height. Resultant ulnar variance is measured at +3mm. What percentage of load transmission across the wrist will now be borne by the ulna?

1) 10%
2) 25%
3) 40%
4) 75%
5) 90%

Answer: 3

Ref: CORR 1984;187:26-35

4) OITE 2002 Question 4
When treating a distal radius fracture by closed reduction and external fixation, palmar tilt can be restored by combining longitudinal traction with

1- wrist flexion
2- wrist extension
3- volar shift of the carpus
4- forearm supination
5- forearm pronation

Answer: 3

5) OITE 2002 Question 43
A 35-year-old man sustains a minimally displaced fracture of the distal radius that is treated in a long arm cast. Eight weeks after the injury, he is unable to extend the IP joint of his thumb. Treatment should now consist of

1- decompression of the radial nerve in the forearm.
2- decompression of the radial nerve in the spiral groove.
3- tenolysis of the FPL tendon.
4- A1 pulley release in the thumb.
5- extensor indicis proprius to EPL tendon transfer.

Answer: 5


Lecture 7: Wrist Instability

1) OITE 2004 Question 38
Figure 9 shows the AP radiograph of a 56-year-old man who has had increasing wrist pain for the past 6 months. He denies any specific trauma to the wrist. What is the most likely diagnosis?

1- Osteonecrosis of the scaphoid
2- Gout
3- Rheumatoid arthritis
4- Scapholunate ligament disruption
5- Radial styloid malunion

Answer: 4

2) OITE 2001 Question 107
The volar radioscaphoid ligament (ligament of Testut) functions primarily as a

1- neurovascular conduit.
2- stabilizing ligament of the scapholunate interval.
3- stabilizing ligament of the radiocarpal joint.
4- stabilizing ligament of the midcarpal joint.
5- septal ligament with the interfossal ridge.

Answer: 1

3) OITE 2000 Question 12
Instability of the lunotriquetral joint that results in volar tilt of the lunate is the result of injury to the lunotriquetral ligament and a tear of what other ligament?

1- Scapholunate  
2- Radioscapholunate  
3- Ulnar collateral  
4- Volar radioulnar  
5- Dorsal radiotriquestral

Answer: 5


4) OITE 1999 Question 15
What intercarpal arthrodesis procedure is associated with the highest rate of nonunion?

1- Scapholunate  
2- Scaphocapitolunate  
3- Capitolunate  
4- Capitohamate-lunatotriquestral  
5- Lunototriquestral

Answer: 1

Lecture 8: Elbow

1) OITE 2004 Question 151
A 35 year old man has pain in the antecubital fossa after lifting a couch. Examination reveals limited active flexion and supination secondary to pain. Palpation reveals significant pain over the antecubital fossa without a palpable defect. Management should consist of

1. Immobilization in a long arm cast at 90 degrees of flexion for 6 weeks  
2. Immobilization in a sling for 3 weeks, followed by occupational therapy  
3. Open exploration of the biceps tendon  
4. Immediate active-assisted range of motion  
5. MRI to evaluate the distal biceps tendon

Answer: 5

2) OITE 2002 Question 28
A 17-year-old pitcher reports pain over the medial aspect of the elbow that occurs during the acceleration phase of throwing, and it prevents him from throwing at the velocity needed to be competitive. What structure has likely been injured?

1- Pronator teres
2- Flexor carpi ulnaris
3- Radial collateral ligament
4- Anterior bundle of the ulnar collateral ligament
5- Posterior bundle of the ulnar collateral ligament

Answer: 4


3) OITE 2001 Question 167
Following reinsertion of the distal biceps tendon, early rehabilitation should include

1- active elbow flexion and active forearm supination
2- active elbow flexion and passive forearm supination.
3- active elbow extension and active forearm supination.
4- passive elbow extension and active forearm supination.
5- passive elbow flexion and passive forearm supination.

Answer: 5


4) OITE 2001 Question 239
A 21-year-old male wrestler sustained a right posterolateral elbow dislocation with an associated type I coronoid fracture 2 years ago. Management at the time of injury consisted of application of a splint for 2 weeks. He now reports subsequent elbow subluxation and pain. What is the most likely cause of the instability?

1- Displaced coronoid process fracture
2- Insufficiency of the lateral ulnar collateral ligament
3- Insufficiency of the anterior band of the medial collateral ligament
4- Insufficiency of the posterior band of the medial collateral ligament
5- Anterior capsular insufficiency

Answer: 2

Lecture 9: Soft Tissue Coverage

1) OITE 2005 Question 91
A 35-year-old meat cutter sustains a fingertip injury to his ring finger in a meat slicing machine. Examination reveals an oblique wound beginning at the distal interphalangeal joint flexion crease with loss of volar tissue only. There is no exposed bone or tendon. Primary coverage is best achieved with a

1- V-Y advancement flap
2- thenar flap
3- axial flag flap
4- cross-finger flap
5- split thickness skin graft

Answer: 4 - cross-finger flap


2) OITE 2004 Question 65
A carpenter sustains an avulsion injury to the dorsal aspect of the proximal phalanx of the thumb. Examination reveals a 2 cm x 2 cm defect with an exposed extensor tendon that is without its paratenon. Coverage should be accomplished by a

1- full thickness skin graft.
2- split thickness skin graft.
3- cross finger flap.
4- first dorsal metacarpal artery flap.
5- moberg advancement flap.

Answer: 4

3) OITE 2004 Question 48
What is the preferred type of graft for skin loss on the palmar aspect of the hand?

1. Unmeshed split-thickness
2. Meshed split-thickness
3. Multiple pinch
4. Full-thickness
5. Full-thickness with attached subcutaneous fat.

Answer: 4

4) OITE 2003 Question 95
A 27-year-old chef sustains a traumatic injury to the index finger in an electric mixing machine. Examination reveals an isolated 2cm x 2cm loss of palmar skin over the proximal phalanx with exposure of the flexor tendon. Coverage of this defect is best accomplished with

1. an axial flag flap from the long finger
2. split-thickness skin grafting
3. full-thickness skin grafting
4. a moberg advancement flap
5. a thenar flap

Answer: 1


5) OITE 2003 Question 262
An 18-year-old female musician cuts off the tip of her nondominant index finger, transversely removing about 25% of the distal nail bed and the distal tuft of the distal phalanx. The patient brings along the tip. Management should consist of

1. defatting the tip and suturing it in place as a composite graft
2. a cross finger flap to the tip
3. a volar V-Y advancement flap
4. microvascular replantation
5. bone shortening and primary closure

Answer: 3

Lecture 10: Osteoarthritis of the Hand

1) OITE 2003 Question 61
A patient with carpometacarpal joint arthritis of the thumb undergoes trapezium excision and interposition arthroplasty. One year after treatment, radiographs reveal that there has been a 25% subsidence of the thumb metacarpal compared with its preoperative height. This degree of subsidence will have what effect on the surgical outcome?

1. Will not affect functional outcome
2. Will result in diminished thumb motion
3. Will result in diminished pinch strength
4. Will result in diminished grip strength
5. Will result in moderate activity-related pain
Answer: 1


2) OITE 1998 Question 206
A 34-year-old woman has pain at the base of the thumb that worsens with pinching activities. Nonsurgical treatment has failed to provide relief. Examination reveals that the basilar joint is hypermobile, tender, and painful when stressed. A radiograph of the trapeziometacarpal joint shows normal contour with widening when compared to the opposite side. Management should consist of

1- trapeziometacarpal arthrodesis.
2- osteotomy of the thumb metacarpal.
3- arthrotomy and joint debridement.
4- ligament reconstruction using one half of the flexor carpi radialis.
5- trapezium resection, tendon interposition, and reconstruction of the ligament.

Answer: 4


**Lecture 11: Rheumatoid Arthritis**

1) OITE 2005 Question 151
A 45-year-old man with a history of rheumatoid arthritis reports that he is unable to extend his ring finger. Examination reveals that with active extension, he has a 60 degree extensor lag at the MP joint, but when the finger is passively extended he can maintain it in a fully extended position. Treatment should consist of

1 – sagittal band reconstruction
2 – exploration of the posterior interosseous nerve
3 – flexor tenosynovectomy and resection of one slip of the flexor digitorum sublimis tendon
4 – extensor tenodesis to the EDC tendon of the middle finger
5 – crossed intrinsic transfer

Answer: 1


2) OITE 2004 Question 137
Which of the following changes typically occurs in the inflamed synovium in patients with rheumatoid arthritis?
1- Abundant neutrophils
2- Intimal lining hypoplasia
3- Blood vessel proliferation
4- Thickenning of the basement membrane
5- Reduction of CD4-positive T cells

Answer: 3

3) OITE 1999 Question 79
A 51-year-old woman with rheumatoid arthritis is suddenly unable to actively extend her ring and little fingers on her dominant hand. What is the most likely diagnosis?

1- Volar subluxation of the extensor tendons at the level of the metacarpal heads
2- Posterior interosseous nerve compression at the elbow
3- Intrinsic contractures preventing active extension
4- Attritional ruptures of the extensor tendons at the wrist
5- Cervical radiculopathy

Answer: 4


4) OITE 1999 Question 97
A 35 year old woman with rheumatoid arthritis is unable to extend her middle finger. She also reports pain, swelling, and mild restriction of motion of the wrist and finger metacarpophalangeal joints. Examination reveals that the middle finger MCP joint is held in 60 degrees of flexion. When the finger is passively extended, the patient can then actively hold the finger in full extension. Appropriate surgical treatment should consist of

1- intrinsic releases
2- side-to-side extensor tenodesis
3- extensor hood reconstruction
4- flexor sheath tenosynovectomy
5- radial nerve decompression

Answer: 3

Ref: Green’s Operative Hand Surgery, 3rd edition 1993

Lecture 12: Tenosynovitis

No questions on tenosynovitis

Lecture 13: Principles of Tendon Transfers
1) OITE 2004 Question 154
Examination of a 20 year-old man who sustained a complete spinal cord injury in a diving accident 6 months ago now reveals 0/5 wrist extension strength, 4/5 biceps, 0/5 triceps, 4/5 deltoid, 0/5 finger flexors, and 0/5 intrinsics. He also has a 15 degree elbow flexion contracture. Surgical treatment to help improve his level of functional independence should include which of the following procedures?
   1- Deltoid to triceps transfer
   2- Latissimus to triceps transfer
   3- Shoulder arthrodesis and biceps to triceps transfer
   4- Scapulothoracic arthrodesis
   5- Steindler flexorplasty

Answer: 1

Ref: Green’s Hand surgery vol 4 pp1557-1587

2) OITE 1999 Question 149
A 61 year old man has permanent radial nerve palsy following excision of a tumor. Which of the following sets of transfers will provide the best function?
   1- FCU to EDC, PL to EPL
   2- FCU to ECRB, FCR to EDC, and FDS to ECU
   3- Ring FDS to EDC, FCR to EPL, and PT to ECRB
   4- PL to ECRB, PT to EPL, and Ring FDS to EDC
   5- PT to ECRB, FCU to EDC, and PL to EPL

Answer: 5

**Lecture 14: Congenital Anomalies**

1) OITE 2005 Question 256
When evaluating a child with a hypoplastic thumb, the main distinction between a thumb that can be reconstructed versus a thumb that requires ablation is the presence or absence of
   1- a stable carpometacarpal joint
   2- a stable metacarpophalangeal joint
   3- intrinsic thenar muscles
   4- extrinsic thenar muscles
   5- normal cognitive function

Answer: 1

2) OITE 2004 Question 120
Successful reconstruction of a hypoplastic thumb, excluding pollicization, is most dependent on which of the following factors?

1. Presence of an extensor pollicis longus tendon
2. Presence of the thenar muscles
3. Presence of the flexor pollicis longus tendon
4. Stability of the metacarpophalangeal joint
5. Stability of the carpometacarpal joint

Answer: 5


3) OITE 2003 Question 107
What is the most common congenital hand anomaly?

1- Symbrachydactyly
2- Camptodactyly
3- Syndactyly
4- Polydactyly
5- Constriction ring syndrome

Answer: 3

References: Miller 342-343; OKU 7: 329-337

4) OITE 2002 Question 157
A 9-month-old infant has a hypoplastic thumb. Examination reveals a narrow thumb-index web space, hypoplasia of the intrinsic thenar muscles, and thumb carpometacarpal (CMC) and metacarpophalangeal (MCP) instability. The thumb is radially abducted. Radiographs of the thumb show full complement of bones, but they are hypoplastic relative to the contralateral normal thumb. Reconstruction should consist of

1- ring sublimis opponensplasty, long sublimes flexorplasty, and extensor indicis proprius transfer for extension.
2- CMC and MP fusion in palmar abduction.
3- adductor digiti minimi opponensplasty, extensor indicis transfer for thumb extension, and release of anomalous abductor pollicis brevis.
4- thumb ablation and index pollicization.
5- vascularized second toe metatarsophalangeal joint transfer to the CMC joint and abductor digiti minimi opponensplasty.
Answer: 4


5) OITE 2000 Question 83
Camptodactyly is most commonly caused by

1- volar skin deficiency.
2- volar plate contractures.
3- abnormalities of the palmar fascia and Landsmeer ligament.
4- articular deformity of the proximal interphalangeal joint.
5- anomalous lumbrical and superficialis insertions.

Answer: 5


Lecture 15: Ulnar Sided Wrist Pain

1) OITE 2004 Question 266
A 28-year-old woman has atraumatic ulnar-sided wrist pain. Management consisting of 6 months of splinting and oral anti-inflammatory drugs has failed to provide relief. A current radiograph is shown if Figure 85. Treatment should now consist of

1- complete ulnar head excision (Darrach procedure).
2- Limited ulnar head resection (Wafer procedure).
3- Distal radioulnar joint fusion with creation of proximal pseudoarthrosis (Suave-Kapandji procedure).
4- Ulnar shortening osteotomy (Milch procedure).
5- Hemisection-interposition arthroplasty of the distal radioulnar joint (Bower’s procedure).

Answer: 4


2) OITE 2002 Question 30
What is the most common problem following a Darrach procedure (distal ulna resection)?

1- Proximal ulna stump instability
2- Extensor carpi ulnaris subluxation
3- Injury to the dorsal branch of the ulnar nerve
4- Decreased forearm rotation arc
5- Ulnar translation of the carpus

Answer: 1


3) OITE 2002 Question 111
A 32-year-old professional baseball player notes an episode of sharp dorsal ulnar wrist pain after swinging at a bad pitch. Examination reveals that extension and ulnar deviation of the wrist elicit a painful snap. What is the most likely diagnosis?

1- Triangular fibrocartilage complex tear
2- Distal radioulnar joint capsule tear
3- Extensor carpi ulnaris subluxation
4- Lunotriquetral instability
5- Pisotriquetral instability

Answer: 3


Lecture 16: Amputations and Replantations

1) OITE 2005 Question 193
Which of the following factors is considered most predictive of survival after digital replantation surgery:

1. Patient Age
2. Patient Gender
3. Ischemia Time
4. Mechanism of Injury
5. History of Smoking

Answer - 4. Mechanism of Injury

2) OITE 2005 Question 239
Six hours after a successful replantation of a thumb, skin temperature of the digit has decreased from 93.1 (34 C) to 86 (30 C). What is the best course of action?
1- Administer IV urokinase immediately
2- Administer a stellate block
3- Increase the room temperature
4- Inspect the dressing for any constriction
5- Check the hematocrit

Answer: 4

3) OITE 2004 Question 97
A 30-year-old construction worker sustains a traumatic amputation of his ring finger at the level of the PIP joint. Treatment the day of injury consists of primary closure after the FDP tendon is first sutured over the remaining end of the middle phalanx. What is the most likely complication?
1- Lumbrical-plus deformity to the ring finger
2- Intrinsic-plus deformity to the hand
3- Extrinsic-plus deformity to the hand
4- Extrinsic-minus deformity to the hand
5- Quadrigia effect to the hand

Answer: 5

4) OITE 2003 Question 32
A carpenter sustains a traumatic amputation through the distal interphalangeal joint of his dominant ring finger from a table saw. The wound is allowed to heal by secondary intention. One year after his injury, the patient reports extension of the ring finger when he tightly grips a hammer. Treatment should consist of
1 step-cut lengthening of the central slip.
2 spiral oblique retinacular ligament reconstruction.
3 fourth and fifth dorsal interossei muscle slides.
4 release of the lumbrical tendon.
5 tenodesis of the profundus tendon to the terminal tendon.

Answer: 5

For complete amputations through the midforearm, replantation usually is not recommended if the warm ischemia time is more than how many hours?

1 4
2 6
3 8
4 12
5 24

Answer: 2


6) OITE 2003 Question 250
After finger replantation surgery, use of medical grade leeches is sometimes indicated to

1- prevent digital vessel thrombosis.
2- debride avascular tissue.
3- increase arterial flow.
4- treat venous congestion.
5- diminish ischemic pain.

Answer: 4


7) OITE 2001 Question 181
Which of the following axial pattern flaps is best used to repair fingertip amputations?

1- Axial flag
2- First dorsal metacarpal artery
3- Second dorsal metacarpal artery
4- Reversed dorsal metacarpal artery
5- Digital artery island

Answer: 5

8) OITE 1999 Question 57
Which of the following procedures is considered proper management of an amputated part?

1- Place the part in dry sterile gauze and then against the patient’s body to keep it warm.
2- Place the part in saline of lactated Ringer’s solution ice bath.
3- Wrap the part in gauze moistened with saline or LR, then place it in a plastic bag and place the bag on ice.
4- Wrap the part in gauze, then place it in a plastic bag immersed in an ice and saline bag.
5- Wash the part in any available warm, clean nontoxic fluid to clear debris, then place it in a dry sterile gauze.

Answer: 3

Green’s Operative Hand Surgery pp1085-1102.

Lecture 17: Dupuytren’s Disease

1) OITE 2004 Question 133
What type of cell is associated with the pathogenesis of Dupuytren’s contracture?

1 – Atypical macrophage
2 – Myofibroblast
3 – Tenocyte
4 – Dermatocyte
5 – Fibroblast

Answer: 2

2) OITE 2004 Question 267
All of the following structures may be involved in Dupuytren’s contracture EXCEPT:

1- Cleland’s ligament.
2- Grayson’s ligament.
3- The natatory ligament.
4- The lateral digital sheet.
5- The spiral band.

Answer: 1

3) OITE 2001 Question 258
When performing palmer fasciectomy for Dupuytren’s contracture, what other procedure should not be performed at the same time?

1- trigger finger release
2- Intraoperative digital nerve laceration repair
3- Knuckle pad excision
4- PIP joint arthrodesis
5- Carpal tunnel release

Answer: 5
4) OITE 2001 Question 271
Surgical treatment for Dupuytrens is indicated when contractures are:

1. mp >60, pip any degree
2. mp and pip >40
3. mp >30 and a PIP any degree
4. mp any degree, pip >/= 30
5. any mp or pip.

Answer: 3

5) OITE 2000 Question 208
What structure passes beneath the neurovascular bundle and changes its normal anatomic area in the finger, putting the bundle at risk for injury during surgery for Dupuytren’s disease?

1- Pretendinous band
2- Spiral band
3- Lateral cord
4- Natatory cord
5- Central cord

Answer: 2

Ref: McFarlane RM Plast Reconst Surg 1974;54:31-44.

Lecture 18: Benign Tumors of the Hand and Wrist

1) OITE 2001 Question 155
Figure 50 shows the radiograph of a 24-year-old patient who has a slightly painful swollen distal finger. What is the most likely diagnosis?

1- Glomus tumor
2- Giant cell tumor
3- Intraosseous ganglion
4- Foreign body granuloma
5- Inclusion cyst

Answer: 5

2) OITE 2001 Question 221
A 25 yo construction worker reports a mass on the dorsum of his hand that is painful with strenuous use. Examination reveals a 4x2x1 cm soft mass that overlies the proximal portions of the index and middle metacarpals. It moves with flexion and extension of the digits, becomes firmer with forceful grasp, and does not transluminate. What is the most likely dx?

1- Dorsal wrist ganglion
2- extensor tenosynovitis
3- giant cell tumor of the tendon sheath
4- carpal boss
5- anomalous extensor muscle

Answer: 5

**Lecture 19: Vascular disorders of the hand**

1) OITE 2004 Question 86
Which of following best describes the anatomic relationship of the digital artery and nerve?
1- Nerve ulnar to artery
2- Nerve radial to artery
3- Nerve palmar to artery
4- Artery palmar to nerve
5- Artery lateral to nerve

Answer: 3


2) OITE 1997 Question 87
A 38-year-old construction worker with no history of trauma has had a painful swelling in the hypothenar eminence of his dominant hand for the past 4 weeks. He also reports numbness in the ulnar two digits and cold intolerance. Which of the following studies is most useful for diagnosis?

1- CT scan
2- Bone scan
3- Arteriogram
4- Doppler ultrasound
5- Electrodiagnostic study

Answer: 3
3) OITE 2005 Question 28
A 17-year-old boy reports deformity, occasional pain, and intermittent ulceration of his middle finger. A clinical photograph and an MR angiogram are shown in Figures 8a and 8b. Treatment should consist of
- Proximal ligation of the radial digital artery
- Ray amputation of the middle finger
- Disarticulation through the proximal interphalangeal joint
- Embolization of the lesion
- Resection of the lesion

Answer: 5


Lecture 20: Hand Infections

1) OITE 2003 Question 73
What is the most common infection occurring in a toddler’s and preschooler’s hand?

1. paronychia
2. felon (pulp infection)
3. thenar space abscess
4. herpetic whitlow
5. septic flexor tenosynovitis

Answer: 4


2) OITE 2002 Question 121
A 22-year-old man is involved in an altercation in a bar 2 hours prior to presenting in the emergency wound. Examination reveals a 1 cm laceration over the MCP joint of the middle finger and an Xray reveals a metacarpal head fracture. He has full active extension of all fingers and can make a fist with minimal pain. Management should consist of

1- IV antibiotics, splinting, and observation.
2- IV antibiotics and immediate debridement in the operating room.
3- Local wound care and delayed fixation of the metacarpal fracture.
4- Irrigation of the wound in the ED, oral antibiotics, and immediate active range-of-motion exercises.
5- Insertion of an indwelling joint catheter with serial infusion of antibiotic fluids.
Answer: 2


3) OITE 2000 Question 45
A 23-year-old house painter has mild pain and is unable to fully flex his finger after accidentally discharging a high-pressure paint sprayer into the tip of his left nondoninant index finger 30 minutes ago. Examination reveals a 3-mm puncture wound over the finger pulp, volar swelling of the digit, mildly restricted motion, and intact neurovascular function. In addition to broad-spectrum antibiotics, management should consist of

1- surgical exploration and chemical debridement.
2- extended surgical exploration and mechanical debridement.
3- hospital admission, elevation, and observation.
4- debridement and irrigation of the puncture wound and observation.
5- distal and proximal flexor sheath decompression and catheter irrigation of the flexor sheath.

Answer: 2