Oral Exam

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Case I

Infected Non-Union Mandible

A 37-year-old male presents to the emergency department following 3 months of pain with chewing, limited mouth opening, and a draining sinus from his neck. He recalls falling on his chin 3 months ago.

Objective 1: The candidate can appropriately describe the initial management of this patient.

Questions 1: Describe your initial management of this patient.

- History
- Physical
- Bloodwork: CBC, ESR, CRP

- Imaging: Plain films, +/- CT facial bones
- Swabs for C & S

Objective 2: The candidate can properly diagnose the likely problem based on history and physical examination and plain film imaging.

Question 2: The patient is maloccluded. He has a loose right lower canine, pain at the left angle of his jaw, bilateral mental nerve palsies, and an open draining sinus from the neck. The jaw shifts at the level of the right lower canine and left angle. Plain films show the following.

- Infected non-union right parasymphyseal and left angle fractures of mandible

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Objective 3: The candidate demonstrates an appropriate clinical plan for management of the problem.

Question 3: A CT scan demonstrates a 1.5-cm bone gap at the right parasymphysal fracture. Describe your surgical plan for managing this patient.

- Surgical management
 - Placement of arch bars
 - Right canine extraction
 - Bilateral external incisions to expose fractures
 - Mandibular sequestrectomy
 - Deep bone biopsy for culture

- Rigid fixation: external fixation or rigid mandibular reconstruction plate (locking screws if available)
- Bone graft if satisfied that infection cleared and fixation is rigid

- Medical management

- Infectious Disease consult
- Six weeks of IV antibiotics based on bone cultures

Objective 4: The candidate understands when vascularized bone is required.

Question 4: When would you consider a vascularized bone flap?

- Defect greater than 2 cm

Case 2

Mandible Fracture

A 20-year-old female presents to the emergency department after falling down the stairs while intoxicated. She complains of pain and malocclusion. Multiple fractures were noted on plain films and a CT was ordered.

Objective 1: The candidate can appropriately diagnose the fracture pattern.

Questions 1: Describe this patient's mandible fracture.

- Bilateral condyle fracture with left condylar dislocation
- Right parasymphyseal fracture

Objective 2: The candidate can describe the surgical management of this patient's fractures.

Question 2: How would you manage these fractures surgically?

- MMF
- ORIF of parasymphyseal fracture

Objective 3: The candidate understands the indications for opening the condyle.

Questions 3: After placing the patient in arch bars with elastics and plating the parasymphyseal fracture, the patient is noted to be maloccluded post-operatively. What are the absolute indications for opening the condyle according to Zide and Kent?

- Displacement into the middle cranial fossa
- Failure of obtaining adequate occlusion by closed reduction
- Lateral extracapsular displacement
- Invasion by foreign body

Objective 4: The candidate understands the surgical approaches to the mandibular condyle.

Question 4: What are the approaches to the mandibular condyle?

- Preauricular
- Retromandibular
- Submandibular
- Coronal with extension
- Intraoral +/- endoscopic