

Revised 2000

Oral Surgery 341 – Temporomandibular Disorders

FINAL EXAM

- 1) The natural course of osteoarthritis/internal derangement of the TMJ:
 - a) is completely unpredictable
 - b) depends on the general connective tissue healthiness of the patient
 - c) can include both painful and non-painful phases
 - d) can result in severe articular surface changes over time
 - e) both a and b are correct
 - f) both c and d are correct

- 2) A differential diagnosis of orofacial pain:
 - a) is based mainly on the clinical history
 - b) is based mainly on examination findings
 - c) is based mainly on good imaging studies
 - d) is based mainly on objective measurements and recordings using advanced technologies

- 3) The etiology of most temporomandibular disorders:
 - a) is most likely related to some type of trauma
 - b) most likely can be determined by careful exam and history taking
 - c) is most likely related to psychosocial factors
 - d) is generally multifactorial, requiring a complex analysis
 - e) is generally idiopathic, and cannot be clearly determined

- 4) When a patient behaves in ways that hurt his ability to get help, or that keep him from using treatment effectively, the first thing a dentist should do is:
 - a) refer the patient for a psychiatric consult.
 - b) discuss the patient's behavior and the effects of the behavior with the patient in a non-threatening manner.
 - c) discuss the matter gently in a family conference.
 - d) prescribe muscle-relaxants.

- 5) When a patient is a known abuser of codeine comes to a dentist with TMD pain, which one of the following is NOT TRUE about how the pain treatment should be handled?
 - a) The dentist should avoid prescribing the patient's choice of drug for abuse.
 - b) The dentist should avoid prescribing any narcotic pain-killers.
 - c) The dentist should work in conjunction with the patient's chemical-dependence treatment team.
 - d) The dentist should prescribe the lowest effective dose, and least addictive pain-killer that is effective.

- 6) The purpose of asking a patient to keep a pain diary is PRIMARILY to
- Help his family understand the effect of the pain on the patient.
 - Help the dentist understand the pain triggers.
 - Help the patient be more aware of pain triggers.
 - Help the dentist understand the patient's personality disorder.
- 7) A teen-aged girl is sensitive about her looks. She develops a TMD disorder following orthodontic treatment. In spite of appropriate treatments, her pain does not decrease, and she becomes more and more withdrawn and avoids going to school. This is an example of:
- Schizophrenia
 - Inward Personality Syndrome.
 - A very typical TMD case.
 - Secondary gain.
- 8) Opioids reduce joint pain by:
- suppression of prostaglandin E_2 (PGE_2) synthesis when injected into the joint space.
 - blocking transmission of impulses at the synapse between primary and second order pain afferent neurons.
 - inhibiting GABA inhibition of Raphe Magnus neurons.
 - blocking bradykinin induced synthesis of prostaglandin E_2 (PGE_2) synthesis by postganglionic sympathetic nerve terminals.
 - all of the above mechanisms.
- 9) For any single patient with internal derangement/osteoarthritis of the TMJ:
- there is a 50-50 chance to have significant symptoms
 - there is a 50-50 chance to have significant radiographic changes
 - there is a 50-50 chance of good recovery
 - there is a very high probability of good recovery
 - both a and c are correct
 - both b and d are correct
- 10) The objective of most treatments for TM disorders is (choose all correct answers):
- to control or eliminate pain
 - to control or eliminate etiologic factors
 - to increase functional range of motion (ROM)
 - to restore normal anatomy and histology of the TMJ structures
 - to accelerate the healing process

- 11) If a patient requires both TMD therapy and dental treatment (choose all correct answers):
- a) they can be done simultaneously
 - b) the dentistry can be done first, and symptoms may then improve
 - c) emergency dental procedures can be done initially
 - d) jaw pain and dysfunction must be treated before initiating most routine dental procedures
 - e) major dental work should be deferred until TMD symptoms resolve
- 12) Before initiating any major dental procedures (choose all correct answers):
- a) all patients should be screened for noises in the TM joints and tenderness in the muscles of mastication
 - b) all patients should be screened for significant TMD symptoms and/or functional limitations
 - c) all patients should have TMJ imaging done to establish a baseline for healthiness of the TMJ
 - d) all patients should have TMJ imaging to establish a baseline for condyle/fossa relationships
 - e) all screening exam findings should be entered on the patient's records for medicolegal reasons
- 13) Type C and Type IV fibers have the following transmitter substances:
- a) Substance P and Glutamate
 - b) Substance P and neurokinin A
 - c) Substance P and GABA
 - d) a and b are correct
 - e) a, b, and c are correct
- 14) Which of the following mediators of pain is known to be produced by synoviocytes in response to joint tissue injury:
- a) Nor-epinephrine
 - b) Serotonin
 - c) Potassium
 - d) Prostaglandin E₂ (PGE₂)
 - e) Glutamate

15. Orofacial pain is difficult to localize because:
- a) there are many thin fibers with large receptive fields.
 - b) wide dynamic range secondary neurons have inputs from primary afferents with diffuse receptive fields.
 - c) there is massive convergence of type III/IV and Adelta/C fibers carrying pain at the level of the trigeminal sensory nuclear complex.
 - d) wide dynamic range neurons of the trigeminal sensory complex receive input from both pain and non-pain fibers.
 - e) all of the above are correct.
- 16) Compared to responses in a normal joint, in a painful joint the:
- a) primary pain afferent neurons will generate impulses at a greater frequency, both when the joint is at rest and when it is being flexed or extended.
 - b) primary pain afferent neurons will generate impulses at a greater frequency when the joint is at rest, but not when it is flexed and extended.
 - c) primary pain afferent neurons will generate impulses at a greater frequency when the joint is flexed and extended, but not when it is at rest.
 - d) primary pain afferent neurons will generate impulses at a greater frequency, but the frequency is not related to the state of rest or movement at the joint.
 - e) the muscles that span the joint will modulate the frequency of impulses generated by the primary pain afferent neurons.
- 17) Compared to a person having normal, non-painful jaw joints, a subject with a painful joint may have:
- a) limitation of jaw motion.
 - b) hyperactive and tender jaw muscles.
 - c) abnormal jaw movement.
 - d) headaches.
 - e) all of the above.
- 18) Which of the following medications have been shown to have value in reducing the perception of jaw joint pain (all 3 must be correct)?
- a) ibuprofen, acetaminophen, and amitriptyline.
 - b) amitriptyline, opioids and ibuprofen.
 - c) opioids, ibuprofen and benzodiazepines.
 - d) amitriptyline, benzodiazepines, and aspirin.
 - e) none of the above.

- 19) If a person presents with a "closed lock" (inability to open normally), which of the following may be true:
- a) The patient is experiencing myospasm
 - b) The joint is experiencing friction/lubrication problems
 - c) The articular disk is blocking forward movement of the condyle
 - d) The patient probably has a history of clicking
 - e) All of the above
- 20) If an MRI shows fluid present inside the TM joint capsule, that probably means (choose all correct answers):
- a) Inflammation is present inside the TMJ
 - b) The patient is complaining of pain
 - c) The joint space is expanded
 - d) Jaw opening is limited
 - e) You are looking at synovial fluid
- 21) Choosing arthroscopy instead of arthrocentesis for the TMJ depends on whether the surgeon primarily wants:
- a) to eliminate pain
 - b) to increase range of motion
 - c) to deal with longstanding closed lock
 - d) to wash out the joint
 - e) to deal with non-response to conservative treatment
- 22) Muscle spasm has been defined as:
- a) any painful muscle disorder
 - b) involuntary muscle contraction
 - c) most probable etiology of myofascial pain
 - d) the muscle disorder to be treated primarily by pharmacological agents
- 23) Clinical success of management of masticatory muscle disorders with an interocclusal appliance is most often attributed to:
- a) increasing vertical dimension of occlusion
 - b) mandibular repositioning to the centric relation position
 - c) elimination of occlusal interferences
 - d) cognitive awareness of the patient to alter masticatory functional and parafunctional behavior
- 24) Myofascial pain is most often described as:
- a) dull, achy, and diffuse pain
 - b) sharp, pulsating, and diffuse pain
 - c) dull pulsating, and well localized pain
 - d) sharp, aching and well localized pain