Facial Pain Syndromes: Diagnosis & Management Options

Marisa Chang, M.D.
Assistant Clinical Professor
UCLA Department of Neurology
UCLA School of Dentistry
Causes of Pain

• TMJ TemporoMandibular Joint
• Muscle
• Nerve
Causes of Pain

• **TMJ TemporoMandibular Joint**
• Muscle
• Nerve
TMJ TemporoMandibular Joint

- Refers to the joint.
- TMD – Temporomandibular Dysfunction refers to dysfunction of the joint.
- Joint Clicking.
- Joint Locking.
- Arthritis.
Classification of Joint Mechanics Problems

- Anterior Disc Displacement with Reduction-Clicking
- Anterior Disc Displacement w/o Reduction (Close Lock)
“Normal” Joint Mechanics

• Posterior band of disc at 12 o’clock position.
• Disc rotates posteriorly as condyle rotates.
• As condyle passes over eminence, disc is at its most posterior position relative to condyle.
Temporomandibular Joint Mechanics
Temporomandibular Joint Mechanics
Temporomandibular Joint Mechanics
Temporomandibular Joint Mechanics

40-60mm
Temporomandibular Joint Mechanics
Temporomandibular Joint Mechanics
Temporomandibular Joint Mechanics
Anterior Disc Displacement with Reduction
Internal Derangement
Clicking
Internal Derangement
Clicking
Internal Derangement
Clicking
Internal Derangement
Clicking
Internal Derangement
Clicking
Internal Derangement
Clicking
Non Painful Clicking (TMD)

- Does not require treatment if it is not painful (30% of the population have joint noises).
- May require treatment if “jamming” is occurring with increasing frequency.
Intermittent Locking and/or Painful Clicking

• May require intervention with anterior advancement splint until joint inflammation subsides and joint adapts to the mechanical dysfunction
Painful Internal Derangement
With Episodic Locking
Painful Internal Derangement
With Episodic Locking
Painful Internal Derangement
With Episodic Locking

18-28mm
Treating the Painful Episodic Locking Joint

• Home Care Protocol
• NSAID’s for inflammation
• Repositioning Splint Therapy
Internal Derangement
Clicking-Repositioning
Internal Derangement Repositioning
Internal Derangement Repositioning
Internal Derangement Repositioning
Internal Derangement Repositioning
Treating the Anterior Displacement w/o Reduction (Closed Lock)

• Manipulation
• Physical Therapy
• Arthrocentesis
• Arthroscopic Surgery
TMJ Arthritis

- Tender to palpation and manipulation
- Pain with chewing.
- Swelling
- Posterior teeth may not touch.
- Crepitus (late sign)
- Reduced joint space
- Loss of subcortical bone or sclerosis
Temporomandibular Joint
Osteoarthrosis
Temporomandibular Joint Osteoarthritis

- Pain in Joint
- Osteolysis
- Loss of Joint space
- Loss of subcondral bone.
Diagnosis of Arthritis

• Joint pain
• Crepitation
• Pain with joint loading/chewing
• Tomograms
• ANA, CBC, Platelet, Diff, Sed rate (Westergren)
Treatment of Arthritis

- Home Care Protocol
- NSAID’s
- Corticosteroids (e.g. Medrol Dose Pack) Joint Injection with Steroids
- Joint Injection with Hyaluronic Acid
Causes of Pain

• TMJ TemporoMandibular Joint
• Muscle
• Nerve
Definition of Myofascial Pain

• A regional muscle pain syndrome that is characterized by painful triggerpoints that refer to sites remote from the triggerpoint site.
Masseter Referral Pattern
Splenius Capitus
Treatment

• Eliminate the provoking factors
• Correct posture
• Myofascial Protocol
  – Teach Muscle Stretching
  – Instruct in use of moist heat and ice
  – Decrease muscle load
  – Teach Spray and Stretch
• Manage stress
• Trigger point injections
Termination of the Pain Cycle

• Lidocaine infiltration or dry needling of trigger areas
• Sustained heavy pressure on them
• Spraying the overlying skin with ethyl chloride or Fluorimethane Spray
Causes of Pain

• TMJ TemporoMandibular Joint
• Muscle
• Nerve
Neuropathic Pain

- “sharp, shooting, electric, burning, tingling”
- Intermittent
- Caused by nerve irritation or damage.
- Dysesthesia: unpleasant, abnormal sensation
- Allodynia: painful response to non-painful stimuli
- Paresthesia: abnormal sensation (numbness, tingling)
Trigeminal neuralgia
Trigeminal neuralgia
Trigeminal neuralgia
Trigeminal neuralgia

- Episodes of intense pain in tooth, ear, eye, nose, lips, teeth, scalp, jaw, forehead.
- Unilateral.
- Intermittent, lasting seconds.
- 1/15,000.
- Usually after age 50.
- More prevalent in females.
Medical Treatment of Trigeminal neuralgia

- Anticonvulsant/Neuropathic medications
- Carbamazepine, oxcarbazepine, lamotrigine, phenytoin, gabapentin.
- Anti-spasmodics - baclofen
Interventional Treatment of Trigeminal Neuralgia

- Radiofrequency thermal lesioning