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Temporomandibular Joint Disorders





DIAGNOSIS OF
TEMPROMANDIBULAR
JOINT DISORDERS

History taking



- ❖ Past history of the disease include; the onset of the illness, duration, frequency, initiating or relieving factors.
- ❖ Social and family.
- ❖ Past dental and medical history and hospitalization.

Clinical examination

Extra oral examination

- ✓ Asymmetry
- ✓ Color of the face
- ✓ Presence of scar ...etc
- ✓ Palpation of the muscle of mastication
- ✓ Digital examination of TMJ
- ✓ Auscultation of the joint

Intra oral examination

- ✓ Soft tissue condition
- ✓ Teeth and jaw relation
- ✓ Mouth opening
- ✓ Para functional movements

Radiographical examination

- ❖ Orthopantomograph(OPG)
- ❖ Transcranial or transpharyngeal view
- ❖ Tomograph
- ❖ Arthrograph
- ❖ CT scan

Magnetic Resonance images

Arthroscope



A device used for by inserting tube into the joint space for the diagnosis of the joint diseases to visualize the surface of the disc, bone and lesions of the joint.

The treatment is by injecting a fluid for debridement of the waste products out of the synovial spaces.

Electromyography



A device used to detect the action of the muscle by inserting two electrode in the muscle affected by spasm and drawing a lines on a paper or on the screen to monitor changes activity and the response to the therapy.

The symptoms associated with TMD

characterized by the presence of one or more of the following signs and symptoms:-

- Perauricular pain and tenderness.
- Limitation in the mandibular movement.
- Noise in the joint during condylar movement.
- Pain and spasm of the muscles of mastication.

Myogenic pain

It is the most common disorder causing facial pain:-

- Female are more common than males.
- The pain refers to the TMJ region.
- Diffuse to the facial muscles.
- The pain is dull, chronic and worse in the morning.
- The mandible may deviate to the affected side.
- The patient can open full range (40-50).
- La pt. m. is mostly involved followed by masseter and temporalis which are associated with pain and tenderness

Internal derangement

Abnormal positional and functional relations between disc, condyle and temporal bone surface.

The general clinical signs and symptoms:-

- Clicking or popping with or without pain.
- Episode of pain and tenderness in the joint.
- Sometimes crepitation
- History of locking
- Interference in closing movement.
- The patient may open full range with manipulation.
- The mandible may deviate laterally.

Meniscus perforation

Occurs due to chronic anterior disc displacement. The articulation of the condylar head is with the loose CT (retrodiskal pad area) and cause bone to bone friction (absence of cushion) .

Clinically:-

The patient has history of pain ,clicking and locking. Perforation may cause limited mouth opening, crepitus on auscultation.

Arthrography:-shows dye opacity on both joint spaces.

Osteoarthritis (Degenerative Bone Disease)

- ❖ Generalized process involve weight bearing joints and metacarpophalangeal joints with nodular existence called Heberden's nodes.
- ❖ TMJ is not often involved in generalized joints disease.

Rheumatoid Arthritis

- is a collagen disease associated with post streptococcal immunologic tissue changes localized in the joint.

Ankylosis occur in rare occasions.

Clinically

- the joints are warm, swollen and painful.
- TMJ is frequently involved.
- Stiffness, crepitation are common.
- In childhood may result in class II malocclusion

Condylar fracture

- ❑ Trauma cause unilateral or bilateral fracture.
- ❑ Complete (Green stick) fracture.
 - Unilateral cause shift to the affected side.
 - Bilateral cause gagged occlusion (reposition and anterior open bite).



Management of TMJ Disorders

The primary aim is to:-

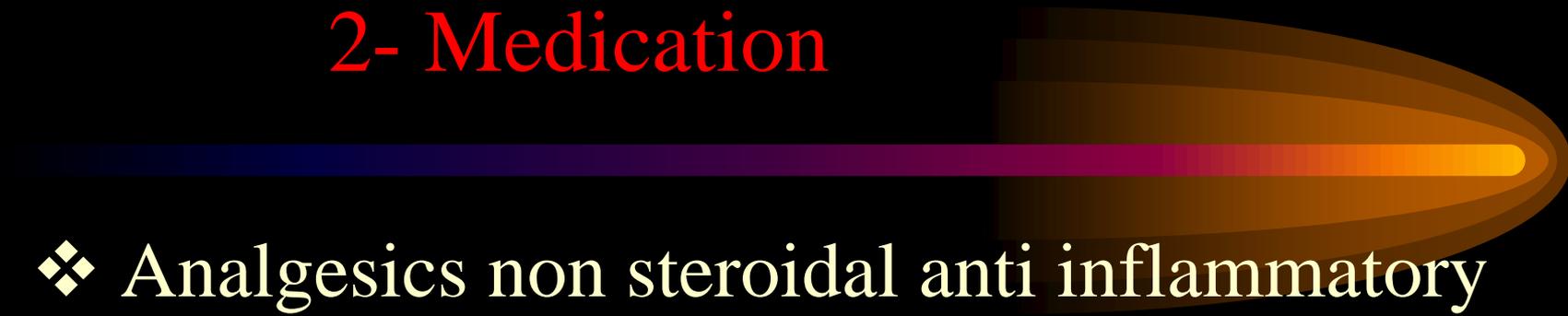
- 1- Relieve pain and discomfort.
- 2- Restoring functions.

To do so, it is important to find out the main cause and interrelate factors which complicate the symptoms.

1- Behavioral modification

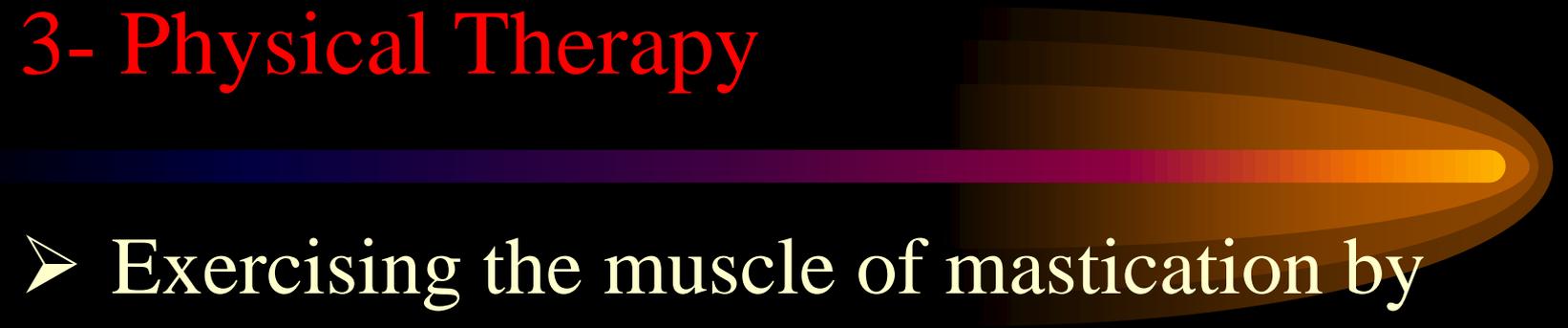
- It is not simple, but effective therapy.
- The habits should be discontinued.
- The patient should be informed about the problem and the way to prevent the complications.

2- Medication



- ❖ Analgesics non steroidal anti inflammatory drugs and Steroid therapy.
- ❖ Muscle relaxant.
- ❖ Tranquilizers.
- ❖ Antidepressant therapy.

3- Physical Therapy



- Exercising the muscle of mastication by stretching or opening and closing against forces.
- Massage the area.
- Cold &/ or hot application will enhance the circulation to remove the waste products and offer a relaxation of the muscle and relieve pain.

4- Occlusal Treatment



- ❖ Restoring the occlusion by restorative procedures, orthodontic appliance or prosthesis will restore the relation of the condyle to the disc and improve the symptoms.
- ❖ Occlusal adjustment of dentate patient should be preformed under strict knowledge about occlusion to avoid irreversible damage.

Advantages of Occlusal splint

- ✓ The principle of good occlusion can be built on a bite or occlusal splint.
- ✓ Changes could be done with a reversible method of treatment.
- ✓ The appliance are used universally.
- ✓ There are main designs and types dictated by the case.

5- Surgery

Relieving pain and restoring function of the joint could be performed by:-

- ❖ Minor oral surgery

e.g. removal of infected tooth, 3rd molar...etc

- ❖ Major surgery procedure e.g.

- Correction of class II and class III malocclusion.

- Repositioning of the disc.

- Condylectomy for patients with ankylosis.



THANK YOU

References

- 1. Greenberg MS, Glick M, Ship J A: Burkett's oral medicine. Eleventh ed. 2008.
- 2. Cawson RA & Odell EW: "Cawson's essential of oral pathology and oral medicine".8th edition Elsevier Science Limited, London 2008.