

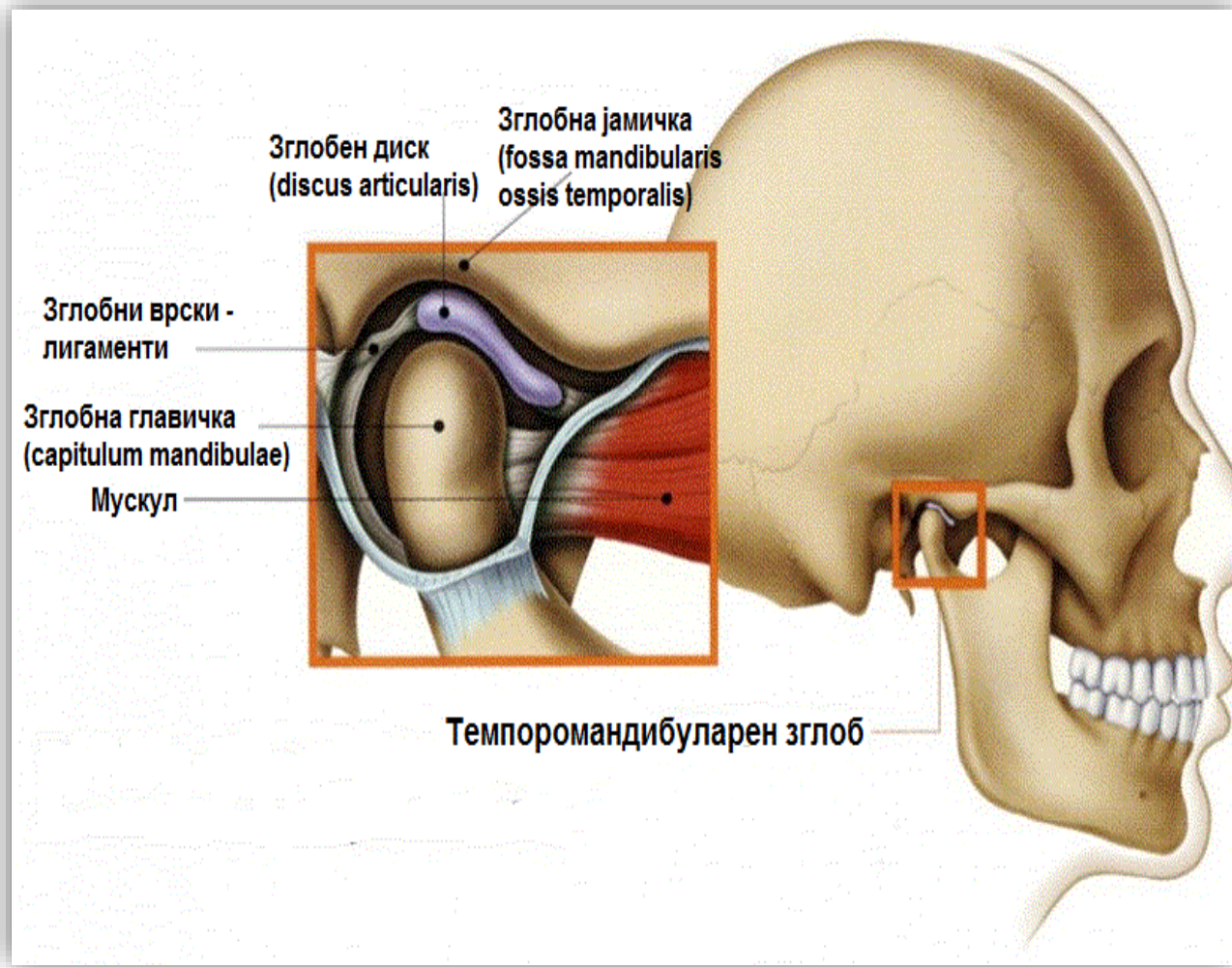
CLASSIFICATION OF TEMPOROMANDIBULAR DISORDERS

Zlatanovska K., Longurova N., Dimova C., Zarkova-
Atanasova J., Proseva Lj.

Faculty of medical science – Dental medicine,
University Goce Delcev – Stip, Republic of North
Macedonia



INTRODUCTION



Soft tissue components

- discus articularis
- capsula articularis
- ligaments

Bony components

- capitulum mandibulae
- fossa mandibularis ossis temporalis





TEMPOROMANDIBULAR DISORDERS (TMDs)

The term temporomandibular joint dysfunction is used for structural and functional disorders related to the temporomandibular joints, masticatory muscles, and surrounding structures.

1

Limited mobility of the lower jaw

2

Increased sensitivity to palpation and pain in the masticatory muscles

3

Increased sensitivity and pain in the joint

4

Locking and squeaking when moving the lower jaw

5

Pain during movement

6

Improper movement of the lower jaw

7

Headache, neck pain

8

Possible hearing and balance problems



Signs and symptoms



CLASSIFICATION



1

Masticatory muscle disorders

Muscle pain, muscle spasm, myositis and tendonitis.

2

Derangements of the condyle-disc disorders

Disk displacement with and without reduction, disc perforation and structural changes in the articular surfaces of the temporomandibular joint.

3

Inflammatory and degenerative disorders

Acute, chronic, osteoarthritis and rheumatoid arthritis

4

Limited mobility of TMJ (hypomobility)

Trismus, ankylosis.

5

Congenital and developmental anomalies

Aplasia, hypoplasia and hyperplasia.

MASTICATORY MUSCLE DISORDERS

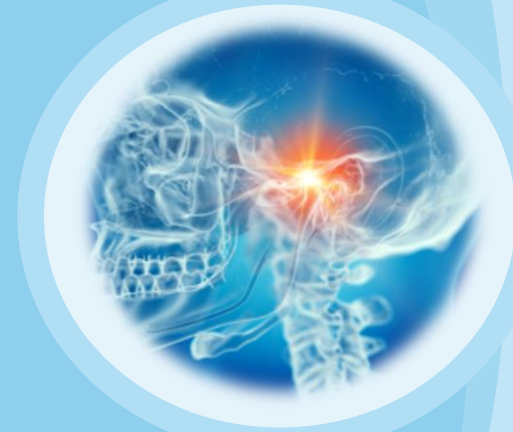
Muscle pain

- Local myalgia - is a primary, non-inflammatory myogenic painful disorder. Pain is caused by the accumulation of substances (histamine, bradykinin and substance P) in which the sarcoplasm inhibits and swells, as a result of which the compression of nerve endings occurs which contributes to increased muscle tone and pain.

Clinical signs and symptoms

minimal resting pain and increased function pain

local muscle hypersensitivity



compromised full opening of the oral cavity

slow opening of the oral cavity.

Etiology

- trauma, increased emotional stress, prolonged contraction and unknown causes.

Disk displacement

Derangements of the condyle-disc disorders are characterized by disturbances in the mechanics of the joint and anatomical changes in the joint with the disc. The most important subjective symptom is capsular pain that progresses to muscle pain.

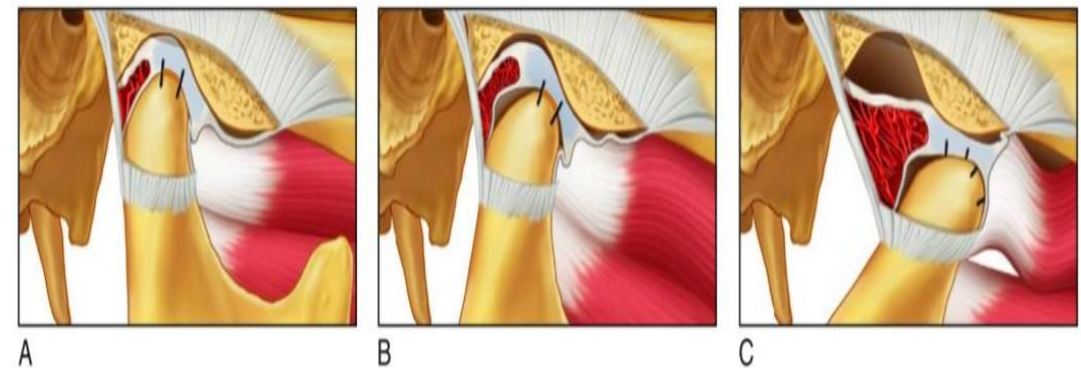
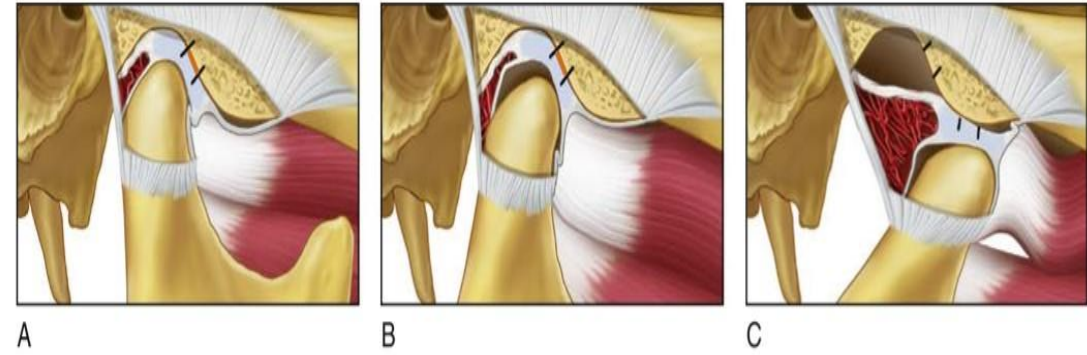
Clinical signs that occur are: sounds coming from the joints, unexpected stiffness in the joint, inconsistency in the bite in the area of the molars and reduced joint space.



Structural changes in the articular surfaces of the temporomandibular joint

Adherence is a *temporary* adhesion of the joint surfaces. It can be located between the articular condyle and the articular disc or between the disc and the fossa. This condition is due to reduced lubrication resulting from prolonged static loading of the joint structures. Adherences are normally temporary and they are eliminated when sufficient force is applied during movement to free the sticking.

Adhesion is the *permanent* adhesion of joint structures, caused by the development of fibrous connective tissue between the joint surfaces. Adhesion also occurs due to reduced lubrication between the joint surfaces. It may occur secondarily after hemarthrosis caused by surgery or macrotrauma.



INFLAMMATORY AND DEGENERATIVE DISORDERS

- Inflammatory processes of the joint occur as a result of inflammation spread from close regions such as the external auditory canal, middle ear, pterygomandibular space, odontogenic infections, less often from penetrating injuries or in combination with systemic disease.
- Acute ones usually occur unilaterally and are characterized by difficult and limited movements of the joint, swelling, pain, difficulty speaking and eating, disturbed occlusion (open bite on the side of inflammation) and disturbed general condition with fever. Swelling and redness are clinically observed in the joint area.
- Chronic inflammatory processes are usually bilateral and are characterized by prolonged pain, limited mobility, and clinical fistula of the skin in the area of the joint and the external auditory canal. Chronic inflammation causes deformation of the bones and leaves sequelae.



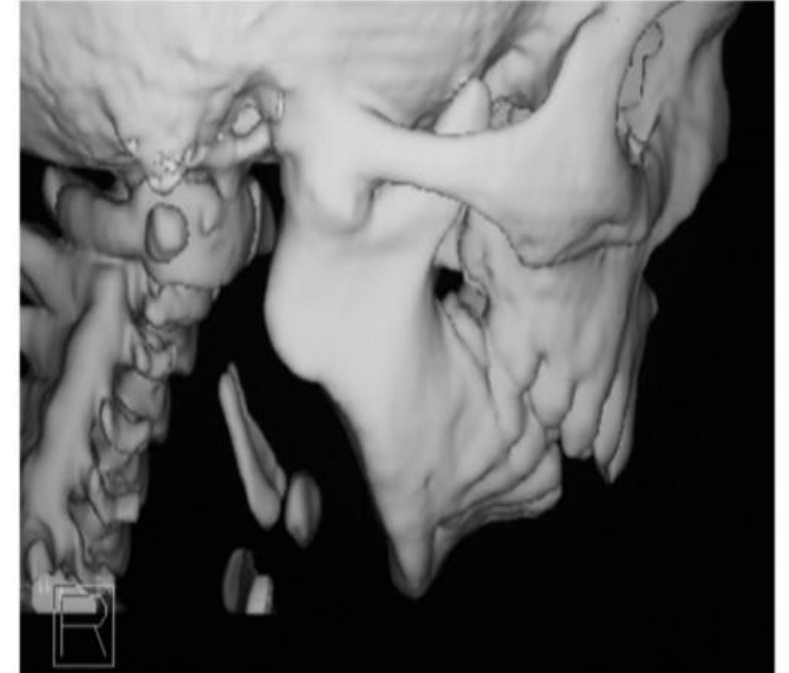
- Hypomobility of TMZ is limited movement when opening the mouth. There is an inability to open the oral cavity and an inability to insert two fingers into the area of the central incisors. The cause may be intracapsular or extracapsular, unilateral or bilateral, and it may also be caused by inflammation, trauma, infection, dislocation of the disc forward, and prolonged immobilization.
- Hypomobility of the joint includes: forward disc displacement, ankylosis, and trismus.



LIMITED MOBILITY OF TMJ (HYPOMOBILITY)

Ankylosis

- Temporomandibular joint ankylosis is a pathological condition in which the lower jaw fuses into the articular fossa with fibrous or bone tissue depending on the cause.
- Patients with ankylosis complain of a lack of lower jaw movement, difficulty chewing and speaking, and difficulty maintaining oral hygiene. Restricted opening of the oral cavity and absence of movement in the joint favors true ankylosis, and if the patient has minimal movements of the lower jaw when opening the oral cavity favors fibrous ankylosis. Ankylosis can be unilateral or bilateral



CONGENITAL AND DEVELOPMENTAL ANOMALIES

- Congenital anomalies are rare conditions in temporomandibular disorders. These are: aplasia, hypoplasia and hyperplasia. Congenital anomalies are most commonly associated with hemifacial microsomia syndrome and Treacher-Collins syndrome.





CONCLUSION

In order to successfully manage the temporomandibular disorders, we must consider that there are numerous types of problems and variety of etiologies that cause them. Separating these disorders into common groups of symptoms and classifying them is a process called diagnosis. This is very important because for each diagnosis there is an appropriate treatment.

There is no treatment that is universal and appropriate for all temporomandibular disorders. In many situations, the success of therapy depends less on how the treatment is performed than on whether the therapy is appropriate and correct for the disorder. Therefore, making a correct diagnosis is extremely important for proper treatment.

**ВИ БЛАГОДАРАМ
НА ВНИМАНИЕТО**

