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SURVEY ON AWARENESS OF TREATMENT PLANNING IN TEMPOROMANDIBULAR DISORDER AMONG DENTISTS

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ABSTRACT:-
A temporomandibular disorder (TMD) is a musculoskeletal disorder within the masticatory system. Many practitioners refer to TMD as a single disorder in spite of the fact that patients have various sub-diagnoses such as, myofascial pain, temporomandibular joint (TMJ) inflammation. TMD is a prevalent disorder most commonly observed in individuals between the ages of 20 and 40.
AIM*: To evaluate the awareness of various treatment planning in temperomandibular disorder among dentists.*
MATERIALS AND METHODS: *A cross-sectional study was done among general dentists.Sample size of 100 was chosen.Self-administered questionnaire containing 6 open questions were distributed.The data obtained were then analysed.*
RESULTS: *64.2% of the dental practitioners know how to manage a patient with temporomandibular joint disorder but they are not sure of the outcome.20% of the dental practitioner use RDC criteria for the evaluation of the temporomandibular joint .69.8% of dental practitioners believe soft splint is the most effective occlusal splint therapy available for the treatment of TMD.*
CONCLUSION: *The awareness of various treatment planning in temperomandibular disorder among dentists is adequate.More awareness on temperomandibular disorder should be created by conducting workshops and Continuing Dental Education programs.*

KEYWORDS: *Temperomandibular Disorders, myofuctional pain,splint.*

I. INTRODUCTION:

A temporomandibular disorder (TMD) is a musculoskeletal disorder within the masticatory system. Many practitioners refer to TMD as a single disorder in spite of the fact that patients have various sub-diagnoses (e.g., myofascial pain, temporomandibular joint (TMJ) inflammation)(1,2). TMD is a prevalent disorder most commonly observed in individuals between the ages of 20 and 40. Approximately 33% of the population has at least one TMD symptom and 3.6% to 7% of the population has TMD with sufficient severity to cause them to seek treatment(3). TMD is often viewed as a repetitive motion disorder of the masticatory structures. It has many similarities to musculoskeletal disorders of other parts of the body, and therapeutic approaches for other musculoskeletal disorders generally apply to this disorder as well(4). Similar to other repetitive motion disorders, TMD self-management instructions routinely encourage patients to rest their masticatory muscles by voluntarily limiting their use, i.e., avoiding hard or chewy foods and restraining from activities that overuse the masticatory muscles (5).

The self-management instructions also encourage awareness and elimination of parafunctional habits and keeping the teeth apart and masticatory muscles relaxed. As with other musculoskeletal disorders, pain during function and/or at rest is the primary reason patients seek treatment, and reduction in pain is generally the primary goal of therapy. Less commonly, individuals seek TMD therapy for joint locking, masticatory stiffness, limited mandibular range of motion, TMJ dislocation, and unexplained change in occlusion (anterior or posterior open bite, or shift in their mandibular midline).

However, TMJ clicking are common among the general population, are generally not a concern for individuals or practitioners, are not commonly treated, and do not generally respond as well to therapy as pain (6-9). This study was initiated to evaluate the awareness of various treatment planning in temperomandibular disorder among dentists.

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II. MATERIALS AND METHODS:

A cross-sectional study was done among general dentists.Sample size of 100 was chosen.Self-administered questionnaire containing 6 open questions were distributed.The data obtained were then analysed.

III. Results:-

64.2% of the dental practitioners know how to manage a patient with temporomandibular joint disorder but they are not sure of the outcome(Fig 1).20% of the dental practitioner use RDC criteria for the evaluation of the temporomandibular joint (Fig 2).50% of the dental practitioner believe that low level laser therapy have a therapeutic effect on treatment of TMD pain (Fig 3).38.8% consider the evaluation of temporomandibular joint prior to treatment of every patient (Fig 4).28.6% of dental practitioner consider Botox as an effective modality for the management of temporomandibular joint disorders (Fig 5).69.8% of dental practitioner believe soft splint is the most effective occlusal splint available for the treatment of TMD (Fig 6).

Legends:-

Figure:-1 Management of patients with temporomandibular joint disorder

Figure:-2 Dental practitioners use RDC criteria

Figure:-3 Low level laser therapy effect on treatment of TMD

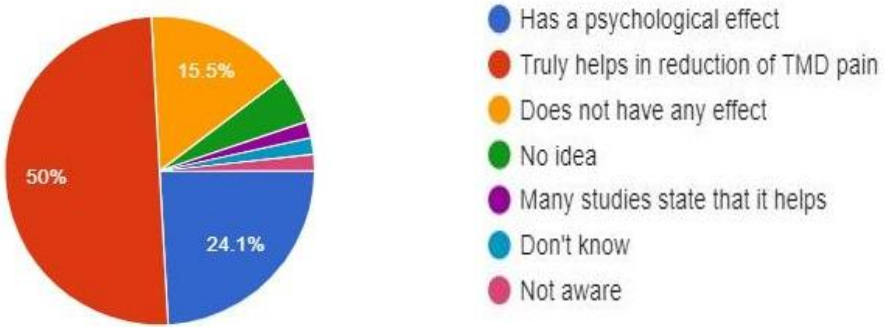

Figure:-4 Evaluation of temporomandibular joint prior to treatment of every patient.

Figure:-5 Botox management of temporomandibular joint disorders.

Figure:- 6 The most effective occlusal splint available for TMDtreatment

IV. DISCUSSION:-

TMD pain is generally located in the masseter muscle, preauricular area, or anterior temporalis muscle regions. The quality of this pain is generally an ache, pressure, or dull pain and may include a background burning sensation. There may also be episodes of sharp pain, and when the pain worsens, the primary pain quality may become a throbbing sensation. Patients with TMD tend to report that their pain is intensified by events such as stress, clenching, and eating, while it is relieved by relaxing, applying heat to the painful area, and taking over-the-counter analgesics(10). As practitioners obtain a patient's pain history, they must be alert for detection of unusual pain locations, pain qualities, pain-aggravating and pain-relieving events, and other factors (e.g., unexplained fever) suggestive of disorders that may mimic TMD symptoms such as infection, giant cell arteritis, meningitis, etc. Practitioners must also inquire about other diseases or symptoms that may negatively impact the patient's response to the practitioner's therapies. For instance, studies suggest that TMD patients with cervical or widespread pain will not obtain the same degree of improvement as other TMD patients who do not have these pains(11-13). Thus, practitioners may desire to refer these patients for treatment of these disorders. For example, the patient may be referred to a physical therapist primarily for treatment of the cervical region, but additionally for supplementary therapy for the masticatory region(14). A thorough physical examination entails evaluating the mandibular range of motion; the minimum of normal is a 40 mm opening, 7 mm to the right and to the left movements, and a 6 mm protrusive movement(15).

If the patient has a restricted opening, the practitioner may be able to determine its origin by stretching the mouth wider. This is usually performed by placing the index finger over the incisal edges of the mandibular incisors and the thumb over the incisal edges of the maxillary incisors and pressing the teeth apart by moving the fingers in a scissor-type motion . The patient will usually feel tightness or pain at the location of the restriction, and the

patient is asked to point to this location. The location is confirmed by the practitioner palpating that location . In the thorough physical examination, the practitioner will also intensify or reproduce the patient's masticatory pain and then rule out structures outside the masticatory region as sources of the pain(16). It is recommended that the masseter and anterior temporalis muscles and the TMJs be palpated to ensure that this intensifies or reproduces the patient's pain and to determine whether the primary pain source is muscle or TMJ (17,18). It is also recommended that the thyroid, carotid arteries, and suboccipital and postural musculature be palpated to determine whether they cause or contribute to the pain complaint; if they do, a referral may be indicated . If the patient's pain was not intensified or reproduced with the palpatory examination, the practitioner may more intensely palpate the previously palpated structures, may locate and palpate the myofascial trigger points within the previous structures, or may attempt to reproduce the patient's pain from different locations (19-21). The decision varies with the practitioner's suspicions and clinical experience.

When evaluating a patient for pain, first evaluation should be for local causes. For example, if an individual has ear pain, it is best if he or she is evaluated by a physician to determine if there is a local cause for this pain (19,21). Similarly, it is common for dentists to receive a referral for patients with ear pain where a physician has ruled out a local cause for the pain (e.g., ear infection) and the physician suspects TMD. Studies confirm that about one third of these patients have ear pain that is referred from TMD, one-third have pain that is referred from a cervical spine disorder (CSD), and one-third have pain referred from both TMD and CSD (22,23).

Based upon the identified tenderness and the ease of the various palpated structures in intensifying or reproducing the ear pain, the practitioner can more easily determine whether it would be most cost-effective to provide this patient with TMD therapy, refer the patient to a physical therapist for CSD therapy, or recommend both therapies . Another example of identifying the source of referred pain is a patient who complains of forehead pain when local structures (e.g., sinuses) have been ruled out as the cause of this pain. Practitioners may want to palpate the structures that have been found to commonly refer pain to the forehead . If palpation of cervical muscles reproduces the patient's forehead pain, this suggests that the cervical musculature could cause or contribute to this pain and it is generally worthwhile to conservatively treat (e.g., through physical therapy) the cervical musculature and see if this provides satisfactory relief of the forehead pain .

As part of the clinical exam, it is recommended that dental practitioners visually perform an intraoral screening, evaluating for evidence of pathology, such as swelling, cavities, deflection of the soft palate when saying "ah," etc. The patient's history will often have alerted the practitioner to oral disorders that may be causing or contributing to the symptoms and which may indicate that additional radiographs or tests are needed. Generally, only a screening radiograph, such as a panoramic radiograph, is needed in the evaluation of the majority of TMD patients (17,18). To varying degrees, practitioners are able to identify contributing factors that appear to be perpetuating the TMD symptoms and the magnitude to which they are contributing to the symptoms. Examples of commonly identified TMD perpetuating factors are nighttime parafunctional habits, gum chewing, daytime clenching, holding tension in the masticatory muscles, neck pain, excessive caffeine consumption, stress, tension, aggravations, frustrations, depression, poor sleep, poor posture, and widespread pain. It is recommended that the contributing factors that are the easiest to change and that are speculated to provide the greatest impact on the symptoms rather than TMD, is the source of the patient's pain include the patient relating that 1) the pain occurs or intensifies upon drinking hot or cold beverages, 2) throbbing pain occurs spontaneously, or 3) throbbing pain wakes him or her up from sleep (there can be other causes for this symptom, e.g., neck pain). In about 3% of the patients referred to the dentist for "TMD," after thorough examination, a tooth is found to be the true source of the pain. The tooth may need to receive root canal therapy or to be extracted(24).

V. CONCLUSION:

The awareness of various treatment planning in temperomandibular disorder among dentists is adequate.More awareness on temperomandibular disorder should be created by conducting workshops and Continuing Dental Education programs.

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