A Comparison of TMD Patients With or Without Prior Motor Vehicle Accident Involvement: Initial Signs, Symptoms, and Diagnostic Characteristics

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The role of trauma in the etiology of temporomandibular disorders (TMD) is controversial. The objectives of this study were to compare presenting signs, symptoms, and diagnoses in patients who had motor vehicle accident trauma-related TMD to patients who had nontrauma-related TMD. Files of 50 trauma and 50 matched nontrauma TMD patients were reviewed. Information concerning presenting pain, temporomandibular joint (TMJ) and related symptoms, examination findings, and diagnoses was recorded. Posttraumatic TMD patients reported higher facial (P = .006) and headache (P = .0001) pain ratings, neck symptom frequency (P < .01), ear-related symptoms (P = .02), sleep disturbance (P < .001), and occupational and avocational disability frequencies (P < .0001). They had greater masticatory muscle (P < .001), neck muscle (P < .001), and TMJ tenderness (P = .01) scores and myofascial pain (P = .006) and arthralgia/capsulitis (P = .008) diagnoses. The nontrauma group had more subjective (P = .02) and objective (P = .05) TMJ crepitus and higher self-reports of parafunctional jaw habits (P = .05). Trauma may be an important etiologic factor for some TMD patients.

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Temporomandibular disorders (TMD) generally have a multifactorial etiology.[1] The role of trauma as one of the etiologic factors is somewhat controversial. Trauma is questioned as a significant contributor to TMD etiology by some,[2–5] but it is believed to be important by others,[6–16] some of whom include trauma from cervical whiplash injuries.[17–23] The mechanism by which whiplash affects the head and neck area has been studied[18,24,25] and mechanisms of causation have been proposed.[17,26,27] However, there is a paucity of data that identifies the incidence of TMD following whiplash (cervical flexion-extension) injuries.[2,3,15]

The objectives of this study were to compare presenting signs, symptoms, and diagnoses of patients who had motor vehicle accident (MVA) trauma–related TMD with patients who had nontrauma-related TMD.

Materials and Methods

Fifty files from one private oral medicine practice were randomly selected, and the charts were manually searched alphabetically to identify patients who met the following criteria: the patients were suffering from one (or more) TMD; they had been involved in an MVA, which was the likely cause of the TMD for which they were referred; they had litigation pending related to the MVA at the time of the first visit; they had a minimum of three office visits; and they had not been seen for an office visit for at least 4 months. All of the patients had been seen by one practitioner, had been interviewed in a narrative fashion, and had undergone an accepted TMD physical examination. Treatments provided were generally currently accepted TMD treatments.[28]

The charts were reviewed and the following information was recorded: the patient's age at presentation, gender, pre-MVA symptoms and conditions (eg, headaches; TMD symptoms; facial pain; parafunctional jaw habits; past treatment for TMD; neck problems; connective tissue diseases, such as arthritis; psychophysiologic disorders, such as stomach ulcers; and other head and neck trauma). Initial presenting pain and temporomandibular joint (TMJ) symptoms were identified, as were reports of parafunctional jaw habits, dizziness, tinnitus, earache, hearing problems, sleep disturbance, disability factors, and changes in symptoms from the time of the MVA to initial presentation. Presenting examination findings were recorded, as were clinical diagnoses (from initial and subsequent assessments) and diagnostic imaging factors.

Some of the data were missing in individual charts, so not all parameters provided 50 entries for the statistical analyses. The examinations were kept as consistent as possible but were not calibrated. (A 0-to-3 tenderness scale was used for the muscles and TM joints; for the purposes of analysis, a "1–2" clinical rating was entered as a "2", etc). Composite scores were calculated for masticatory muscle tenderness (ie, the mean of masseter, temporalis, lateral pterygoid scores—right and left), neck muscle tenderness (mean of trapezius—right and left, other neck strap muscles–right and left, and sternocleidomastoid—right and left scores), TMJ tenderness (mean of lateral and intrameatal—right and left), TMJ clicking (mean of present [1], or absent [0]—right and left), and TMJ crepitus (0-to-3 scale—mean of right and left scores).

Fifty "nontrauma" TMD patients, age- and sex-matched to the trauma group, were selected from the same office. These patients gave no prior history of an MVA or significant blow to the head or neck region, and no litigation was identified. The nontrauma patients also had to satisfy the criteria of having had a minimum of three office visits and not having been seen for an office visit within the past 4 months. It should be noted that it was more difficult to find appropriately matched nontrauma charts for the males. These nontrauma patients had received similar assessments and treatment approaches to the trauma group, and there were also missing data in the nontrauma group. Similar information was recorded for the nontrauma cases as was described for the trauma group.

The data for the trauma and nontrauma groups were entered into Dbase IV (Ashton Tate, Torrance, CA) and subsequently transferred to an SPSS package[29] for statistical analysis. Chi square statistics were used to test the significance of the differences in discrete variables between trauma and nontrauma groups. If the expected value was less than 5 in the chi square tests, Fisher's Exact tests were used. Continuous variables were expressed by means and standard deviations (SD). Two-sample independent t tests were used to test the differences between two means. If the data were skewed, Mann-Whitney U tests were used to test the differences between the trauma and nontrauma groups. Statistical significance was determined by a P value of .05 or less. In addition, κ statistics were used to determine the agreement between pre-MVA symptoms and the symptoms reported at the first clinic visit.

Results

The mean age of the trauma group was 31.8 years (range 15 to 50 years); the mean age of the nontrauma group was 31.7 years (range 14 to 54 years) (P = .98). Both groups consisted of 11 males and 39 females. For the trauma patients, the following symptoms or conditions were reported prior to the MVA: headaches, 14% (one of these stating the headache type to be migraine); TMJ clicking, 18%; TMJ crepitus, 0%; jaw locking episodes, 6%; limited jaw opening, 2%; jaw pain, 6%; parafunctional jaw habits, 16%; neck problems, 28%; and TMD treatment, 14%. In these patients, connective tissue disorders were reported in 10% (arthritis, one patient; carpal tunnel, one patient; lupus, one patient; mildly stiff hands, one patient; no specific diagnosis, one patient) and psychophysiologic disorders in 20% (gastrointestinal tract [GI] ulcers, four patients; asthma, one patient; "burnout," one patient; abdominal pain requiring hospitalization,

Table 1 Symptoms at Initial Presentation

Parameter	Trauma	Nontrauma	*P* value
Facial pain			
Severity (0–3) (±SD)	2.18 (±0.83)	1.72 (±0.81)	.006
Course—constant	23/47* (48.9%)	11/46* (23.9%)	.01
Site—bilateral	32/48*(66.7%)	22/46* (47.8%)	.06
Headache pain			
Severity (0–3)	2.32 (±0.87)	1.46 (±1.18)	.0001
Course—constant	25/47*(53.2%)	10/34* (29.4%)	.03
Neck pain/symptoms	50 (100%)	18 (36%)	< .001
TMJ clicking (right and/or left)	33 (66%)	34 (68%)	.83
Jaw locking	8 (16%)	11 (22%)	.44
Limited jaw opening	20 (40%)	14 (28%)	.21
TMJ crepitus (right and/or left)	3 (6%)	11 (22%)	.02
Parafunctional jaw habit history	20 (40%)	30 (60%)	.05
Sleep disturbance	21 (42%)	2 (4%)	< .001
Ear-related symptoms	25 (50%)	14 (28%)	.02

*Number positive for variable/number with information available.

one patient; stress and GI upsets, one patient; stress-related GI ulcers and bleeding and asthma, one patient; and ulcer and diverticulitis, one patient). Ten percent of patients had missed work (two for less than 1 month but more than 1 week; two for more than 1 month; one duration not available), 6% had vocational activity limitations, and 26% had previously had head and neck trauma.

The corresponding relevant symptoms present prior to initial presentation for the nontrauma group were connective tissue disorders, 8% (arthritis, two patients; tendinitis, one patient; scoliosis, one patient; compared to the trauma group, $P = 1.00$) and psychophysiologic disorders, 22% (GI ulcers, four patients; asthma, five patients; pelvic inflammatory disease, one patient; nervous breakdown, one patient; compared to the trauma group, $P = .81$).

The κ statistics were calculated to assess the level of agreement between the reported pre-MVA jaw-related symptoms (ie, jaw pain, clicking, crepitus, locking, limited opening, parafunctional habits, and headaches) and these same symptoms reported as being present at the first clinic visit. There was poor agreement with all of these variables (ie, $\kappa < 0.4$, with the most agreement seen with the parafunctional habits variable, namely $\kappa = 0.35$).

The trauma group had a significantly higher mean facial pain severity rating and a higher proportion of patients reporting constant and bilateral facial pain than did the nontrauma group (Table 1). Ninety-six percent of the trauma group and 94% of the nontrauma group reported some degree of facial pain to be present. The trauma group also had a significantly higher mean headache pain severity rating and a higher proportion of patients reporting constant headache pain. Ninety-six percent of the trauma group reported headache pain, compared to 68% of the nontrauma group ($P = .0003$). All 50 trauma patients reported neck pain or other neck symptoms at initial presentation; only 36% of the nontrauma group had a positive history of neck-related complaints ($P < .001$).

There were no statistically significant differences between the trauma and nontrauma groups in terms of reported TMJ clicking, jaw locking, or limited jaw opening at initial presentation. However, significantly more nontrauma patients reported TMJ crepitus than did the trauma patients ($P = .02$).

Significantly more nontrauma patients had self-reports of parafunctional jaw habits compared to the trauma group ($P = .05$). Significantly more trauma patients reported sleep disturbance compared to the nontrauma patients ($P < .001$).

Eight (16%) trauma patients reported tinnitus or a plugged sensation of the ears, compared to two (4%) nontrauma patients ($P = .05$). Six (12%) of the trauma patients reported dizziness, compared to three (6%) of the nontrauma group ($P = .49$). In addition, 17 (34%) of the trauma group reported earache, compared to 12 (24%) of the nontrauma patients ($P = .27$). Furthermore, six (12%) of the trauma group and two (4%) of the nontrauma group reported having a hearing problem ($P = .27$). When "ear-related symptoms" were grouped together, 50% of the trauma patients had one or

Table 2 Muscle and TMJ Examination Findings at Initial Presentation

Parameter	Trauma	Nontrauma	*P* value
Masticatory muscle tenderness score (0–3)	1.37	0.70	< .001
Neck muscle tenderness score (0–3)	0.94	0.19	< .001
TMJ tenderness score (0–3)	1.09	0.70	.01
TMJ clicking score	0.80	0.96	.28
TMJ crepitus score	0.17	0.38	.05
Mean maximum (±SD) jaw opening (mm)	36.12 (±8.32)	39.00 (±9.16)	.10
Mean (±SD) lateral excursion (mm)	7.65 (±2.35) (n = 40)	8.02 (±2.01) (n = 45)	.44
Mean (±SD) protrusive excursion (mm)	7.38 (±1.76) (n = 39)	7.59 (±1.96) (n = 46)	.62
Deviation on opening and/or closing	4 (8%)	6 (12%)	.50

more reported symptoms of dizziness, tinnitus, a plugged sensation of the ears, earache, or a hearing problem, compared to 28% of the nontrauma group ($P = .02$) (Table 1).

None of the nontrauma patients reported missing school or work, having disabilities, or having limitations or being prevented from daily activities. Although initially calculated separately, the variables of missing school or work, reporting some level of disability, some limitation of daily activities, and prevention from vocational and/or avocational activities were grouped together; 72% of the trauma patients reported one or more of these alterations of lifestyle ($P < .0001$). These alterations were primarily caused by the following complaints: jaw (2); jaw or TMJ (3) (in combination with other complaints); a combination of headache, neck, shoulder, and/or back complaints (27); a combination of neck and shoulder pain, disorientation and "generalized complaints" (1); foot (and headache) (1); tiredness and pain (1); and problems with lifting (1).

Twenty-one (42%) of the trauma group reported being the same at the time of initial presentation as they were when their symptoms first started after the MVA, 12 (24%) reported being worse, and 17 (34%) reported some improvement since the MVA, prior to treatment at the oral medicine practice.

Upon examination at initial presentation (Table 2), the trauma group had significantly higher mean masticatory muscle tenderness and mean neck muscle tenderness scores compared to the nontrauma group, as well as a significantly higher TMJ tenderness score. There was no statistically significant difference found between the two groups concerning TMJ clicking. The nontrauma group had a higher mean TMJ crepitus score than did the trauma group. The mean maximum jaw opening for the trauma group was 36.12 mm, compared to 39.00 mm for the nontrauma group, but this difference was not statistically significant. There were also no statistically significant differences between the groups concerning the range of mean lateral excursion, mean protrusive excursion, or deviations in the opening and/or closing pattern.

One (2%) of the trauma group had a cranial nerve abnormality on examination; none of the nontrauma group were found to have such an abnormality. Four (8%) of the trauma group had control site tenderness, compared to none of the nontrauma group (P = not applicable [NA]).

No statistically significant differences were found in dental and occlusal findings at initial presentation between the trauma and nontrauma patient groups (Table 3), including Angle classification, mean overbite, mean overjet, the presence of anterior or posterior crossbites, or the presence of anterior open bites. There were no between-group differences found regarding the use of maxillary or mandibular dentures. Similarly, no differences were found between the groups regarding the amount of tooth wear as recorded based on clinical assessment.

The following diagnostic categories were assigned to patients in the trauma group (Table 4) (multiple diagnoses for individual patients were common): myofascial pain (of masticatory muscles), 100%; disc displacement with reduction, 54% (20 of 1

Table 3 Occlusal and Dental Findings at Initial Presentation

Parameter	Trauma	Nontrauma	*P* value
Angle Class (occlusion) (n = 46)			
I	35 (76.1%)	33 (71.7%)	
II	8 (17.4%)	12 (26.1%)	.40*
III	3 (6.5%)	1 (2.2%)	
Mean overbite (± SD) (%)	46.7 (±31.4) (n = 18)	44.5 (±31.4) (n = 13)	.85
Mean overjet (± SD) (mm)	3.0 (± 2.1) (n = 19)	3.7 (± 1.7) (n = 16)	.29
Crossbite			
Anterior	3 (6%)	1 (2%)	.40*
Posterior	4 (8%)	2 (4%)	
Anterior open bite	2 (4%)	3 (6%)	1.00
Maxillary denture	5 (10%)	3 (6%)	.71
Mandibular denture	0	2 (4%)	.49
Tooth wear	29 (61.7%) (n = 47)	36 (72%)	.28

*Chi square tests with two degrees of freedom.

Table 4 Diagnostic Classifications

Parameter	Trauma	Nontrauma	*P* value
Myofascial pain	50 (100%)	43 (86%)	.006
Disc displacement with reduction	27 (54%)	32 (64%)	.31
Disc displacement without reduction	7 (14%)	10 (20%)	.42
Traumatic osteoarthritis	9 (18%)	13 (26%)	.33
TMJ arthritis with systemic component	0	0	NA
Arthralgia/capsulitis	27 (54%)	14 (28%)	.008
Jaw fracture (maxillary)	1 (2%)	0	NA
Muscle headache	20 (40%)	12 (24%)	.09
Vascular headache	11 (22%)	6 (12%)	.18

joint and 7 of both TMJs); disc displacement without reduction, 14% (6 of one and 1 of both TMJs); traumatic osteoarthritis, 18% (8 of one and 1 of both joints); TMJ arthritis with systemic component, 0%; arthralgia/capsulitis, 54% (14 of one and 13 of both joints); jaw fracture (maxillary), 2%; muscle headache, 40%; vascular headache, 22%; other diagnoses, 78%. (These other diagnoses were many and varied, with multiple items possible for individual patients; the following general categories were noted: neck-related symptoms, 19 patients; tooth injury-related problems, 8 patients; deviation in form of the TMJ, 7 patients; chronic pain, 5 patients).

The following diagnostic categories were recorded in the nontrauma group (Table 4, including *P* values for trauma versus nontrauma comparisons) (multiple diagnoses for individual patients were common): myofascial pain (of masticatory muscles), 86% ($P = .006$); disc displacement with reduction, 64% (22 of 1 joint and 10 of both TMJs); disc displacement without reduction, 20% (all of one TMJ); traumatic osteoarthritis, 26% (11 of one and 2 of both joints); TMJ arthritis with systemic component, 0%; arthralgia/capsulitis, 28% ($P = .008$) (8 of one and 6 of both joints); jaw fracture, 0%; muscle headache, 24%; vascular headache, 12%; other diagnoses, 78% (which included the following general categories: neck-related symptoms, 11 patients; deviation in form of the TMJ, 9 patients; chronic pain, 5 patients).

Seven (14%) of the trauma group were sent for screening radiographs (ie, pantomographs) and 11 (22%) for "special imaging" studies (eg, tomograms, arthrograms, computerized tomographic scans, bone scans), compared to 1 (2%) of the nontrauma group for a screening radiograph and 19 (38%) for special imaging ($P = .04$). The results of imaging in five of the 18 (27.8%)

trauma patients who had diagnostic imaging studies resulted in a change of the original diagnosis and/or treatment plan, compared to 2 of the 19 (10.5%) in the nontrauma group ($P = .23$).

Discussion

The trauma patient group in the present study was found to differ in a number of respects from the nontrauma group. Trauma patients reported higher ratings of facial pain at initial presentation; higher proportions of trauma patients also reported constant and bilaterally involved facial pain. They reported higher ratings of headache pain, and there was a higher proportion of patients with (constant) headache pain. All of the trauma patients reported the presence of neck pain or other neck symptoms at initial presentation. The trauma patients had a higher incidence of tinnitus or plugged sensations of the ears. Many more trauma patients reported sleep disturbances as compared to the nontrauma patients.

Examination findings at the initial clinic visit also differed between the groups, with the trauma patients having higher mean masticatory and neck muscle tenderness scores and TMJ tenderness scores. These findings appear to be consistent with the self-reports of more intense facial and headache pain and more common neck symptoms in the trauma group. These examination findings may also be indirectly related to the higher reported incidence of sleep disturbances in the trauma group. The trauma group also had a greater number of patients with the diagnosis of myofascial pain and arthralgia/capsulitis, as reflected by the examination findings. Some of the trauma patients (and none of the nontrauma patients) missed work; were disabled to some extent, according to their reports; or were limited in or prevented from performing their daily activities.

In contrast, the nontrauma group had a higher proportion of patients with reported crepitus and an overall higher mean TMJ crepitus score on examination. They also had more patients with self-reported parafunctional jaw habits.

No statistically significant differences were found between the trauma and nontrauma groups for many of the variables, including the incidence of reported pre-MVA connective tissue or psychophysiologic disorders, reported TMJ clicking, locking or limited opening, the TMJ clicking score on examination, the range of mandibular movements, deviations of the mandible on opening or closing, occlusal parameters, denture use, or observed tooth wear. The self-reports of dizziness, earache, and hearing problems showed no differences; the presence of cranial nerve abnormalities or control site tenderness on examination also did not reveal differences. The only diagnoses with noted between-group differences were myofascial pain and arthralgia/capsulitis.

Goldberg et al[14] found more posttraumatic than "idiopathic" TMD patients to have palpation tenderness of extraoral masticatory muscles, sternocleidomastoid muscles, and cervical muscles, and no differences in the prevalence of limited jaw opening or signs suggesting symptomatic internal derangement, as was found in the present study. In contrast to our study, they found no differences in palpation reactions with the masticatory muscles intraorally, or with external palpation of the TM joints. However, their patient numbers were very small for some of their comparisons (eg, 8 versus 1). Although not addressed in the present study, they also suggested that posttraumatic TMD patients had a higher prevalence of cognitive deficit than did the nontrauma TMD group.[14]

DeBoever and Keersmaekers[15] found only the following differences in their posttraumatic TMD patients as compared to their nontrauma TMD patients at the initial examination: more restriction of jaw opening and more patients in the severe dysfunction groups according to the Helkimo Dysfunction Index in the trauma group. The present study found no statistically significant differences in range of jaw opening initially, and the Helkimo Dysfunction Index was not used. In contrast to our study, they found no between-group differences for the following: reports of recurrent headache, pain in the cervical region, dizziness, parafunction, and TMJ crepitation; and tenderness on examination. Similar to the present study, they found no significant between-group differences for TMJ clicking on examination.[15]

Romanelli and coworkers[30] found posttraumatic TMD patients to have a higher incidence of self-reported symptoms suggestive of affective disorders (eg, sleep disturbances) as compared to nontrauma TMD patients, consistent with the trauma patients in our study having higher rates of self-reported sleep disturbances than the nontrauma patients.

Although their studies included only posttraumatic TMD patients and did not show the same incidences as the present study, Benoliel and coworkers[31] and Heise et al[2] found "musculoskeletal pain" and "TMJ and masticatory muscle pain," respectively, to be more common than other diagnoses in their study populations.

Burgess[12] described TMD patients who reported some type of trauma as the precipitating factor. Sleep disturbance was reported by 36% to 71% of the patient subsets, and parafunction by 48% to 56%,[12] again showing, as did our study, that these findings are relatively common in posttraumatic TMD patients.

Brooke and Stenn[32] found that 98% of their 36 postinjury myofascial pain dysfunction syndrome patients reported pain, 81% had an abnormal joint sound, and 65% had restricted opening of the jaw. The findings from the present study showed somewhat comparable occurrences of these TMD signs and symptoms.

Burgess and Dworkin[33] reported that 55% of their litigating posttraumatic TMD patients had neck pain and 92% had face pain, as compared to 26% of nonlitigating posttraumatic TMD patients with neck pain and 72% with face pain. Litigating subjects were more likely to endorse sleep disturbance, but there was no difference in self-reported bruxism between litigating and nonlitigating subjects. Litigating patients tended to have lower baseline pain-pressure thresholds over frontal and masseter areas than did nonlitigants. There were no differences between the groups regarding passive jaw opening and crepitus, but the litigating subjects tended to have more TMJ clicking and restricted jaw opening occurrences.[33] Similarly, the present study had more trauma patients with face and neck pain, sleep disturbance, and muscle tenderness compared to nontrauma patients, as well as no differences in jaw opening; however, our study also showed that the nontrauma group had more crepitus and there were no between-group differences in TMJ clicking.

Concerning litigation effects in this study, all of the patients in the trauma group had litigation pending when seen initially, while none of the nontrauma patients did. It was concluded from an extensive review that, in non-TMD patient populations, generally very few (minor) differences were noted between litigants and nonlitigants (especially within the same type of legal system), and patients generally did not necessarily improve shortly after the claim was settled.[34] Furthermore, it was concluded from a separate study of 30 of the present study's post-MVA TMD patients that those with settled claims appeared similar to those not settled with respect to residual problems of jaw, head, and neck pain and jaw dysfunction.[35] Based on these findings, it would therefore seem unlikely that litigation played a significant role in explaining the noted differences between the trauma and nontrauma groups in the present study.

The presence of neck complaints in all the trauma patients and only about one third of the nontrauma patients, and the presence of greater severity of pain and examination findings in the trauma group, are factors that may be of importance in patient management and prognosis. The relative severity of symptoms is demonstrated in the history provided by the patients, the examination findings, and the effect of symptoms on lifestyle. The lack of difference in occlusal factors between the trauma and nontrauma patients suggests that they do not represent important factors in the differences between these groups of patients.

Because these two patient groups differ in a number of characteristics, including the severity of symptoms and signs, it is believed that MVA-associated trauma, including that without direct facial impact, may be the variable that causes differences in these patients and may be a primary factor in TMD following trauma.

There are limitations to this study. This is a retrospective chart review with 50 subjects in each of the two groups. There was no standardization or calibration of the history or examination procedures, with at least one result being that some of the variables had less than 50 entries. However, all of the patient assessments and treatments were performed by one practitioner, with efforts being made to be consistent between patients. There was no blinding; however, the practitioner saw these patients in the context of a private practice and not with the primary purpose of conducting research on these files in the future. The composite scores represented an experimental construct untested for validity, although the methodology is somewhat similar to that used in the Craniomandibular Index.[36]

Summary

Posttraumatic TMD patients in the present study differed from nontrauma TMD patients in terms of presenting signs, symptoms, and diagnoses in a variety of ways, including having more facial and headache pain, neck symptom frequency, ear-related symptoms, and sleep disturbance, as well as greater frequencies of occupational and avocational disability. Posttraumatic TMD patients had greater masticatory and neck muscle and TMJ tenderness scores, and myofascial pain and arthralgia/capsulitis diagnoses. The nontrauma group had more complaints and examination findings of TMJ crepitus and higher self-reports of parafunctional jaw habits. No differences in occlusal parameters were

noted between trauma and nontrauma patients. The remainder of the presenting signs, symptoms, and TMD diagnoses showed no between-group differences. In general, the trauma group had more severe pain complaints, more signs and symptoms of soft tissue injuries, and more difficulty coping with their overall situation compared to the nontrauma patients. Further study of these same patient cohorts will attempt to determine if these between-group differences influence the treatments received and their outcomes.

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Resumen

Comparación de Pacientes con Trastorno Temporomandibular con ó sin Involucración Previa en Accidente de Vehículo Motorizado: Signos Iniciales, Síntomas y Características de Diagnóstico

La parte de trauma en la etiologia de trastornos temporomandibulares (TTM) es controvertida. Los objetivos de este estudio fuerón comparar signos, síntomas y diagnósticos que presentaban pacientes con TTM relacionados a trauma de accidente en vehiculo motorizado contra pacientes TTM no relacionados a trauma. Expedientes de 50 pacientes TTM con trauma y 50 igualados sin trauma fuerón revisados. Información concerniente a la presencia de dolor, articulación temporomandibular (ATM) y síntomas relacionados, hallazgos de examen y diagnósticos fuerón registrados. Pacientes TTM postrauma reportarón ratings más altos de dolor facial (P =.006) y de cabeza (P = .0001), frecuencia de síntomas de cuello (P < 0.01), síntomas relacionados a oído (P = .02), problemas de sueño (P < .001) y frecuencias de incapacidad ocupacional y vocacional (P < .0001). Tuvierón mayores scores de dolencia de músculo masticador (P < .001), músculo de cuello (P < .001) y ATM (P = .01) y dolor miofacial (P = 0/006) y diagnósticos de artralgia/capsulitis (P = 0.008). El grupo de no trauma tuvó más crepitus de ATM subjetivos (P = .02) y objetivos (P = .05) y reportes más elevados de hábitos parafuncionales de articulación (P = .05). Trauma puede ser un factor etiológico importante para algunos pacientes con TTM.

Zusammenfassung

Ein Vergleich von TMD Patienten mit oder ohne früherer Beteiligung an einem Autounfall: anfängliche Zeichen, Symptome und diagnostische Charakteristika

Die Rolle von Traumata in der Aetiologie von temporomandibulären Erkrankungen (TMD) ist umstritten. Die Ziele dieser Studie waren der Vergleich von aufgetretenen Zeichen, Symptomen und Diagnosen bei Patienten mit einer TMD, welche verbunden war mit einem Autounfalltrauma, mit Patienten, die eine nicht-traumabezogene TMD aufwiesen. Akten von 50 Trauma- und 50 entsprechenden Nicht-Traumapatienten wurden überprüft. Angaben betreffend aufgetretenen Schmerzen, Kiefergelenks (TMJ) und damit verbundene Symptome, Untersuchungsbefunde und Diagnosen wurden festgehalten. Posttraumatische TMD-Patienten zeigten höhere faziale (.006) und Kopfschmerzquote (P = .0001), Häufigkeit von Nackensymptomen (P < .01), Ohrenbezogene Symptome (P = .02), Schlafstörungen (P < .001), und Häufigkeit von Berufs- und Nebenbeschäftigungsbeeinträchtigungen (P < .0001). Sie wiesen eine grössere Empfindlichkeit der Kaumuskulatur (P < .001), der Nackenmuskulatur (P < .001) und des Kiefergelenkes (P = .01) auf, sowie Diagnosen von myofazialem Schmerz (P = .006) und Arthralgie/Kapsulitis (P = .008). Die nicht-traumatische Gruppe hatte mehr subjektives (P = .02) und objektives (P = .05) Reiben im Kiefergelenk und höhere selbstberichtete Parafunktionen (P = .05). Traumata mögen ein wichtiger ätiologischer Faktor für einige TMD-Patienten sein.

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