

Anatomical factors in medication-related osteonecrosis of the jaws

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reliability and validity in informal carers of patients with COPD have yet to be established. Therefore, this study aimed to assess the reliability and validity of the QASCI questionnaire for informal carers of patients with COPD.

Materials and methods: The Portuguese questionnaire QASCI evaluates the distress associated with burden of caregiving (scores range from 0 to 100, with higher scores indicating higher levels of burden). It has 32 items divided in 7 subscales (emotional burden; personal life implications; financial burden; reactions to demands; mechanism of efficacy and control; familiar support; and satisfaction with the role). Each item is scored with a 5-point Likert scale. Reliability included internal consistency assessment using the Cronbach's alpha. Construct validity was assessed using the following questionnaires: Zarit Burden Interview (ZBI) for concurrent validity; the Hospital Anxiety and Depression Scale (HADS) (anxiety and depression) and WHOQOL-Bref (quality of life) for convergent validity. Pearson's (r) or Spearman's (ρ) correlation coefficients were used according to the distribution of each variable. QASCI was expected to present a stronger (positive) correlation with ZBI than with HADS ($r \geq 0.5$) and a negative correlation with WHOQOL-Bref ($r \leq -0.4$) [3,4].

Results: Forty-one carers (62.4 ± 10.1 years, 90.2% female; patients' $FEV_1 = 43.7 \pm 19.7\%$ pred) completed the questionnaires. Cronbach's alpha of the full QASCI scale was 0.767 and the subscales presented values between .633 and .929. QASCI and ZBI had a very strong positive correlation ($r = 0.914$; $p = .01$). QASCI had a strong positive correlation with HADS anxiety ($r = 0.608$; $p = .01$) and depression ($\rho = 0.617$; $p = .01$) subscales and moderate to strong negative correlations with all the WHOQOL-Bref subscales (-0.418 to 0.723 , $p = .01$).

Discussion and conclusions: QASCI presented good internal consistency and construct validity results. QASCI seems to be a promising measure to evaluate distress levels associated with burden of caregiving in informal carers of patients with COPD.

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Anatomical factors in medication-related osteonecrosis of the jaws

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ABSTRACT

Introduction: Medication-related osteonecrosis of the jaws (MRONJ) is a serious adverse event of antiresorptive and anti-angiogenic drugs that affects bone and soft tissue of the maxillofacial region [1]. Clinical features and risk factors of MRONJ have been described in several publications, however few studies address the anatomical factors involved [2,3]. This study aims to: (a) describe in detail the anatomical location of MRONJ lesions; (b) identify the most susceptible areas and association with other factors.

Materials and methods: A retrospective study was conducted including all patients with MRONJ diagnosis in an Oral Surgery Clinic between 2004 and 2018. The data was collected from the patient clinical records. Lesion extension was

determined by the physical exam and/or computer tomography. Statistical significance was defined as $p < .05$. Chi-square, Student *t*-test, ANOVA and log-linear analysis were used as appropriate. All were performed using IBM SPSS® version 23.

Results: A total of 147 patients were included in the sample, 95 (64.6%) females and 52 (35.4%) males, with a mean age at diagnosis of 68.12 ± 11.02 years. A total of 182 lesions were diagnosed, 67 (36.8%) in the maxilla and 115 (63.2%) in the mandible. The molars and premolars regions were most affected both in the maxilla (1st and 3rd sextants) with 46 (68.7%) lesions, and in the mandible (4th and 6th sextants) with 96 lesions (83.4%). The alveolar bone was affected in 170 (93.9%) the lesions, whereas 18 (9.9%) had involvement of the basal bone, 7 (3.8%) arose in the mylohyoid line and only 5 (2.7%) occurred in the hard palate. At least one of the cortical walls was involved in 125 (68.7%) lesions, the buccal wall in 53 (29.1%) lesions, the palatal or lingual wall in 32 (17.6%) lesions and both walls in 40 (22%) lesions. Male patients were more likely to have multiple lesions located both in the maxilla and mandible (17.3%) than female patients (5.3%) ($p < .017$). In absence of any traumatic factor, periodontal disease was found in 34.4% of patients with anterior lesion location (2nd or 5th sextants) vs 10.2% with posterior lesion location, although not statistically significant ($p < .89$). We found no statistically significant differences or association between lesion location or lesion extension and dentoalveolar surgery, use of dental prosthesis, age at diagnosis, type of drug and length of antiresorptive or antiangiogenic medication.

Discussion and conclusions: MRONJ lesions were more frequently located in the mandible as expected from previous studies [2,3]. The molars and premolars regions were most affected and at least one cortical wall was involved in most lesions. Some authors have concluded that areas with thin mucosa are more susceptible, our results are in accordance as we identified several lesions in the mylohyoid line [3]. Our study results can reflect the importance of anatomical factors such as occlusal forces, blood supply and bone density vary in these locations.

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Clinical outcomes in TMD patients after arthrocentesis with lysis, lavage and viscosupplementation

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ABSTRACT

Introduction: Temporomandibular disorders (TMD) affect a considerable part of the population [1]. Its most prominent symptoms are restricted joint function with limited maximum mouth opening (MMO), pain and headache, with an important impact on Quality of Life [2,3]. The aim of this study is to evaluate the effect of Arthrocentesis with Lysis, Lavage and Viscosupplementation (ALLV) with hyaluronic acid in the treatment of pain related to TMJ internal derangements.

Materials and methods: Thirty patients diagnosed with internal derangement of the temporomandibular joint through magnetic resonance imaging were submitted to ALLV, after 6 months of ineffective conservative treatment. A classic, single session, two-needle technique arthrocentesis was performed in all cases, encompassing the injection of 200–300 mL of Ringer lactate solution to the superior joint compartment for lysis and lavage, followed by intra-articular injection of 1 mL of hyaluronic acid for viscosupplementation [4,5]. Patients were prescribed a simple program of physical exercises to be repeated daily at home for one month.

Evaluation was carried pre-operatively on the day of surgery and post-operatively at 1 week, 1 month, 3 months, 6 months and 12 months after the procedure. Evaluated clinical parameters included: pain (at rest and in function) – Visual Analogic Scale (VAS); maximum mouth opening (MMO) – millimetres (mm); mastication efficiency – VAS. Overall tolerability of the procedure (Likert scale: 0–4) was evaluated at 1-week post-operative time.

Data was collected between September 2016 and May 2019.

Statistical significance was set at $p < .05$. Paired *t*-tests were used to compare pre- and post-operative pain, MMO and