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Objective: To compare surgical and non surgical approaches for the treatment of BRONJ and the possible usefulness of lasers.
Methods: Two hundred and seven patients (59 males, 148 females; 178 oncological and 42 non oncological patients) affected by BRONJ were evaluated at the University of Parma, Italy, between 2004 and 2012. Sites were subclassified as follows: Group 1 (G1): 32 sites treated with medical therapy; Group 2 (G2): 45 sites treated with medical therapy associated to Low Level Laser Therapy (LLLT); Group 3 (G3): 17 sites treated with the combination of medical and surgical therapy; Group 4 (G4): 41 sites treated with the combination of medical and traditional surgical therapy with LLLT; Group 5 (G5): 56 sites treated with the combination of medical and laser-assisted surgical therapy. The outcome of treatment was assessed using the staging system proposed by Ruggiero: transition from a higher Stage to a lower one for at least 6 months was considered as clinical improvement and suggestive of a successful treatment.
Results: Clinical improvement was achieved in eight out of 32 (25%) BRONJ sites in G1. Sites of G2 with an improvement were 32 out of 45 (71.11%). Eleven out 17 BRONJ sites (64.7%) in G3 had a transition to a lower stage after treatment. A clinical improvement was recorded in 36 out of 41 cases (87.8%) in G4 and in 55 out of 56 cases (98.21%) in G5. Complete healing was obtained in 53 out of 56 cases (94.64%) in G5.
Conclusions: In our experience, the percentage of success obtained with a combined approach based on medical, surgical (including laser-assisted) and LLLT (G4–G5) is significantly higher than the percentage of improvement obtained in G1, G2 and G3.
Relevance: The management of BRONJ is still controversial: the introduction in the treatment protocols of laser-assisted and surgical approach may improve therapeutic results.

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Radiological characteristics of bisphosphonate related osteonecrosis of the jaw involving the maxilla

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Objectives: To evaluate the effect of bisphosphonate related osteonecrosis of the jaw (BRONJ) of the maxilla on the adjacent structures: the maxillary sinus, the nasal septum and the nasolacrimal duct.
Methods: We retrieved and reviewed the records of 163 consecutive patients diagnosed with BRONJ at the Oral Medicine Clinic, Sheba Medical Center, Tel-Hashomer, Israel. For those who had involvement of the maxilla and available imaging studies, analysis of the Head and Neck CT was performed.
Results: Sixty six patients (40%) had involvement of the maxilla, 82 patients (51%) had involvement of the mandible and 15 patients (9%) had involvement of both the maxilla and the mandible. We analysed the CT studies of 48 patients with involvement of the maxilla. Thirty-three patients (69%) had evidence of maxillary sinus opacification ant the involved side, 26 patients (54%) had nasal septum deviation and 11 patients (23%) had opacification of the nasolacrimal duct.
Conclusions: In addition to its well established effects on the mandible and maxilla, BRONJ affects also the adjacent structures such as maxillary sinus, nasal septum and nasolacrimal duct.
Relevance: CT imagery is recommended for all patients with BRONJ involving the maxilla in order to assess the extent of the damage to the maxilla and adjacent structures.

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Clinical findings and parafunctions of young females with temporomandibular disorders

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Objective: The aim of this study was to evaluate the self-reported behavioral factors, bruxism, parafunctions and signs of clenching in the soft tissues (if any) and to compare the clinical and radiological findings in young female patients with TMD.
Methods: A standardized Research Diagnostic Criteria for TMD (RDC/TMD) assessment was performed on 28 female patients (15–36 year-old, 23.60 ± 5.83) to assign Axis-I clinical physical diagnoses. T1-, T2- and proton-dentisty weighted TMJ MRI scans were made on a 1,5T imaging unit (Siemens Symphony Maestro Class). Statistical evaluation was done by SPSS for Windows 15.0
Results: All patients had oral parafunctions: Bruxism; 100%, too much talking; 35.7%, chewing; 64.3%. 78.6% females exhibited marked imprints of the teeth on their inner cheeks (Linea Alba) while 78.6% females with parafunctional habits demonstrated signs of tongue indentations consistent with clenching behaviour. Myofascial pain was recorded in 89.3% patients and joint pain was recorded in patients with parafunctions; in 92.9% unilaterally and in 7.1% bilaterally. No statistical significant difference was found with tongue indentation/chewing/talking and joint pain/muscle pain (Fischer's exact test). The correlations between MRI findings and parafunctional habits were; 35.7% disc displacement with reduction, 46.7% disc displacement without reduction and 42.9% effusion. A statistically significant difference was seen in patients with unassisted mouth opening and disc displacement without reduction (Chi-square test, $P = 0.009$).
Conclusion: It was concluded that myofascial and/or TMJ pain were seen in all patients with parafunctions. No oral parafunctions were found to be statistically related to anamnestic, clinical and radiological findings of TMD. More research with larger groups is needed.
Relevance: Stressful life events were associated with the performance of multiple oral habits in young females resulting with TMJ pain, tongue indentations and other signs.

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Oral disease severity scoring in the assessment of therapeutic response for lichen planus, pemphigus vulgaris and mucous membrane pemphigoid

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Background: There are no published oral disease severity scoring (ODSS) methods for routine use in the monitoring of lichen planus, mucous membrane pemphigoid and pemphigus vulgaris that combine objective clinical outcomes with a quality of life measure. Hence, there is little evidence-base upon which to recommend or compare specific therapies for the oral aspects of these disorders.
Objectives: To demonstrate the use of an ODSS for use in oral lichen planus (OLP), pemphigus vulgaris (PV) and mucous membrane pemphigoid (MMP).
Methods: A retrospective review of oral disease severity scores in a) recalcitrant ulcerative OLP ($n = 10$) treated with mycophenolate mofetil (MMF) for 3.7 years b) PV ($n = 13$) treated with prednisolone combined with either azathioprine or MMF for 18 months c) MMP treated with either dapsone ($n = 25$) or sulphamethoxypyridazine ($n = 13$) for 24 months using an ODSS in use for OLP (Escudier 2007). The inter-class correlation was assessed for MMP.
Results: The inter-class correlation coefficient for the ODSS methodology was 0.95 for MMP. For ulcerative OLP the mean baseline ODSS (39.1 ± 11.9) improved by 40% (24.3 ± 11.9) after 12–15 months MMF. For PV, the mean baseline ODSS improved from 25.4 ± 15.3 to 4.0 ± 3.4 during treatment. For MMP the mean baseline ODSS reduced from 22.4 ± 11.25 to 14.8 ± 9.3 with dapsone therapy ($n = 25$) and from 30.6 ± 11.6 to 11.6 ± 4.0 with sulphamethoxypyridazine ($n = 13$). There was only minimal further improvement noted in patients with either MMP or LP during longer follow-up.
Conclusion: We propose that our ODSS is a quick, simple and reproducible method for assessment of disease severity and response to therapy during routine clinical practice. Our findings demonstrate that clinical improvement often takes 12–18 months and that subtle change in disease severity can only be monitored by careful routine scoring.
Relevance: The use of this ODSS will facilitate evidence based clinical practice and may ultimately be useful for multicentre collaboration.

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Low-level laser therapy in the treatment of burning mouth syndrome

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Objectives: Burning Mouth Syndrome (BMS) is a clinical condition characterized by a burning sensation in a morphologically normal oral mucosa without associatied systemic disorders. The aim of this study was evaluate the effect of low-level laser therapy (LLLT) in the treatment of BMS patients.
Methods: After careful evaluation of medical history and oral examination, 20 patients diagnosed with BMS recalcitrant to conventional treatment were included in the study. All patients underwent a weekly session of LLLT (660 nm, 40 mW, 20 J cm^{-2}, 10 s $point^{-1}$) for 10 weeks. Burning intensity was evaluated before and after each session with a 10 cm visual analog scale (VAS), with 0 (zero) indicating no symptoms and 10 (ten) the most severe burning.
Results: All patients reported improvement after each session, with up to 49% reduction in VAS scores after the tenth session. When pre-session VAS was compared among the session there was a statistically significant reduction in second, fourth and tenth sessions (Wilcoxon, $P < 0.05$).
Conclusion/Relevance: LLLT may be an alternative treatment for the oral burning in patients with BMS unresponsive to conventional treatment by reducing the burning sensation and promoting immediate relief to the patients.