Data were presented at the 51st Annual Meeting of the American Society of Hematology, New Orleans, LA, December 2009.

AZITHROMYCIN TREATMENT OF DRUG-INDUCED GINGIVAL HYPERPLASIA IN RENAL TRANSPLANT PATIENTS. Nayer Abo El Saad, Una El-Shinnawi, and Adel Bakr, Mansoura University, Mansoura, Egypt.

Objectives. The objective of the study were to evaluate and compare the efficacy of azithromycin therapy in reducing drug-induced gingival hyperplasia as an adjunctive therapy in renal transplant patients (RTP) under cyclosporine (CsA) and those under tacrolimus (TcR) therapy.

Methods. A total 570 patients were screened from the outpatient Renal Transplant Clinic of the Nephrology Centre, Mansoura University, Egypt. Those patients had received kidney transplants between February 1992 and July 2009. Seventy-five kidney transplant recipients (48 men, 27 women) diagnosed to have early to moderate gingival overgrowth with stable allograft function entered the study. These patients had been taking either CsA or TcR for more than 6 months. The patients were randomized equally into 3 groups. Two groups had received 500 mg azithromycin for 5 days, given at baseline only, whereas the control group received placebo in addition to the oral hygiene program. The clinical periodontal parameters were assessed and included the plaque index, bleeding on probing index, the gingival overgrowth index, and the probing depth. They were evaluated at the baseline and at follow-up time (1, 3, 6 months).

Results. At baseline, all groups were similar in the clinical parameters with no statistically significant difference ($P > .05$). At follow-up time intervals, all groups showed improvement over baseline measurements; however, both groups who received azithromycin showed more favorable results manifested by reduction of gingival bleeding and the depth of gingival sulci; however, this improvement was more in the CsA group than the TcR group and the difference was statistically significant ($P < .05$).

Conclusions. Azithromycin is an effective therapeutic tool in the management of drug-induced gingival overgrowth, as it is conservative, well tolerated, and rapidly effective with minimal side effects; especially in renal transplant patients under cyclosporine therapy.


Objectives. Long-term administration of bisphosphonates has been associated with bisphosphonate-related jaw osteonecrosis (ONJ). A potential etiologic factor is disproportionate concentration of bisphosphonate in the jaws, but it is unclear if regional biodistribution and bioavailability of bisphosphonates is site-dependent. We tested in rats the hypothesis that skeletal biodistribution and bioavailability of bisphosphonates is anatomic site-dependent. We studied, with sequential EDTA decalcification, bisphosphonate signal intensity per unit area normalized to adjacent background intensity was expressed as relative fluorescence units (RFUs) after defining specific regions of interest (ROIs) correlating with bone sections subjected to bisphosphonate desorption. Recovered labeled bisphosphonate was measured with a fluorometer, whereas calcium released in solution was measured with an atomic absorption spectrophotometer. Mean site-specific RFU was correlated with bisphosphonate and calcium amounts from corresponding bone sections. Skeletal site differences of ROIs were analyzed and compared based on oral, axial, and appendicular regions. Data expressed as mean ± standard deviation were analyzed by 1-way ANOVA followed by Dunn-Sidak post hoc multiple comparisons with statistical significance set at $P < .05$.

Results. Bisphosphonate signal intensity was similar in oral and appendicular bones but lower in axial bones; however, liberation of hydroxyapatite-bound bisphosphonate following sequential EDTA decalcification resulted in significantly higher bisphosphonate release from oral bones relative to axial and appendicular sites ($P < .05$).

Conclusions. This study demonstrated regional site disparity in rat skeletal uptake and release of bisphosphonate in oral, axial, and appendicular bones that suggest possible preferential bisphosphonate uptake in the jawbone.

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Data were presented at the American Society for Bone and Mineral Research Meeting, Toronto, Ontario, September 16-20, 2010.


Objectives. RAS is a painful condition of unknown etiology affecting over 2.5 billion individuals worldwide. Because vitamin deficiencies have been implicated as a possible cause of RAS, we hypothesized that vitamin supplementation may be beneficial. The goal of this study was to examine the effects of daily multivitamin supplementation on incidence and duration of RAS episodes.

Methods. Adult patients with idiopathic minor RAS were randomized to daily multivitamin ($n = 83$) or placebo ($n = 77$) for 1 year. The active medication contained 100% of the reference daily intake (RDI) of the essential vitamins. Subjects recorded onset and duration of RAS episodes, mouth pain, normalcy of diet, and treatment compliance in study diaries. Subjects were asked to come in for study visits at baseline, at 6 and 12 months, and during RAS episodes for verification. Number of new RAS episodes was compared between the 2 groups using analysis of covariance (ANCOVA) with treatment as the factor and length of study participation as the covariate. Duration of RAS episodes was compared using a linear mixed model with treatment as the factor and duration in days as the dependent variable.

Results. There was no significant difference in the mean number of new RAS episodes between the multivitamin (4.06 episodes) and placebo (4.27 episodes) arms during the study
PAIN CAN PREDICT POOR PROGNOSIS IN PATIENTS WITH ORAL SCC. Jun Sato, Yutaka Yamazaki, Akira Satoh, Ken-ichi Notani, Yoshimasa Kitagawa, Hokkaido University, Sapporo, Japan.

Objectives. We have reported that histologic mode of invasion of OSCC is a significant risk factor for spontaneous pain (Odontology 2010). This study was undertaken to elucidate whether cancer pain could be a risk factor to predict a poor prognosis of patients with OSCC.

Methods. A total of 117 patients (85 men, 32 women; mean age 64 years) with untreated OSCC were examined. The primary site of the cancer was the tongue (54 cases), lower gingiva (22 cases), buccal mucosa (14 cases), floor of the mouth (12 cases), upper gingiva (12 cases), and palate (3 cases). The clinical stage of the cancer was stage I in 22 cases, II in 35 cases, III in 20 cases, and IV in 40 cases. Presence or absence of pain in the region of the cancer was confirmed by medical interview at the first visit. We evaluated the relationships between the OS rates and the clinicopathological variables, including gender, age, T-stage, N-stage, the degree of histologic differentiation, the histologic mode of invasion, and pain. OS curves were plotted using the Kaplan-Meier methods. The prognostic significance of factors for OS was analyzed using log-rank test and Cox multivariate proportional hazards regression analysis.

Results. At the first examination, 43 (37%) of the 117 patients reported spontaneous pain. The mean duration of the follow-up period was 39 months. In univariate analysis, the OS rate of patients with pain was significantly lower than that of patients without pain ($P = .006$). Moreover, univariate analysis revealed that T-stage ($P = .0007$) and N-stage ($P < .0001$) were both significantly associated with the OS rate. Multivariate analysis revealed that the spontaneous pain ($P = .04$, risk ratio: 0.4) and N-stage ($P < .0001$, risk ratio: 0.1) were independent significant factors for OS.

Conclusions. This study suggests spontaneous pain before treatment may be associated with poor prognosis of the patients with oral squamous cell carcinoma (OSCC).

IMPAIRED SALIVARY FLOW DOES NOT IMPAIR MICONAZOLE BUCCAL TABLET EFFICACY. Rene-Jean Bensadoun, Naomi Musaji, and Pierre Attali, CHU de Poitiers, Poitiers, France.

Objectives. Miconazole buccal tablet (MBT) provides an immediate and sustained release of miconazole into the mouth for local treatment of oropharyngeal candidiasis (OPC). A post hoc analysis evaluated whether reduced salivary flow, resulting from radiotherapy treatment for head and neck cancer (HNC), affects the efficacy of MBT or miconazole oral gel (MOG).

Methods. Radiotherapy-treated HNC patients with OPC were evaluated in an open-label, noninferiority trial comparing 50 mg MBT once daily ($n = 107$) to 125 mg MOG 4 times daily ($n = 106$) for 14 days. This post hoc analysis evaluated improvement in OPC lesion and symptom scores (rated on 4-point Murray scale) in patients stratified by salivary flow (absent, partial, normal). The primary efficacy variable was clinical success (CS); (disappearance or improvement of lesions by 2 points) at day 14 (D14) in the per-protocol (PP) population (previously reported).

Results. At baseline, 95% of all PP patients had absent or partial salivary secretion and CS for MBT (58%) was not statistically inferior to MOG (55%) ($P < .0001$). More MBT patients at baseline ($n = 22, 21%$) had no salivary secretion versus MOG ($n = 15, 14%$). In these patients, 64% treated with MBT experienced ≤1 point improvement in lesion score versus 53% with MOG ($P = .42$), and the proportion of patients who were lesion free at D14 was 36% MBT versus 27% MOG. The number of patients with no burning/soreness at D14 increased 23% from baseline with MBT and by 27% with MOG; patients with no odynophagia at D14 increased by 5% with MBT and by 13% with MOG. Patients with partial salivary flow at baseline also demonstrated improvement in lesion and symptom scores. Similar results were obtained in the modified-ITT population.

Conclusions. In the presence of normal or reduced salivary flow, MBT is an effective topical treatment for OPC with the convenience of once-daily dosing.

Data were presented at the Multinational Association of Supportive Care in Cancer Meeting, Vancouver, British Columbia, June 2010.

MODERATE-DOSE ADJUVANT CHEMOTHERAPY TEMPORARILY IMPAIRS ORAL HEALTH-RELATED QUALITY OF LIFE. Siri Beier Jensen, Camilla Krageland, Anja Weirsøe Dynesen, Henning T. Mouridsen, Jesper Reibel, and Birgitte Nauntofte, University of Copenhagen, Denmark.

Objectives. The aim was to assess if oral adverse effects of adjuvant chemotherapy (CT) in early-stage breast cancer patients have an impact on oral health–related quality of life during and 1 year after treatment.

Methods. Forty-five consecutive breast cancer patients, eligible for adjuvant CT with cyclophosphamide, epirubicin or methotrexate, and 5-fluorouracil were followed before, during, and 6 months and 1 year after CT. Subjective assessment of xerostomia, taste disturbances, oral mucosal, gingival, and dental soreness or pain, as well as objective findings, including unstimulated (UWS) and stimulated (SWS) whole saliva flow rates, oral mucosal erythema and ulceration, gingivitis, and oral candidiasis were examined and related to oral health–related quality of life as assessed by the Oral Health Impact Profile (OHIP). Statistical hypotheses testing was performed by fixed-effects model of analysis of variance for OHIP changes over time and Pearson correlation coefficients for testing of correlations of clinical oral adverse effects and OHIP variables.

Results. The subscale scores of functional limitations ($P = .002$), physical pain ($P = .02$), physical disability ($P = .0001$), and psychological disability ($P = .04$) increased significantly over time indicating a worsening during CT. During CT, xerostomia was correlated with worsening of functional limitation...