

Controversial role of bisphosphonates in osteonecrosis of the jaws

Kontrowersyjna rola bisfosfonianów w martwicy kości szczęk

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SUMMARY

Aim of the study: Evaluation of the role of bisphosphonates in jaw osteonecrosis.

Material and methods: A retrospective cohort study on 29 patients. The bisphosphonate group consisted of 12 multiple myelomas, 3 breast carcinomas, 2 prostate carcinomas, and 1 patient with osteoporosis. Two breast carcinomas, 2 bronchial carcinomas, and 7 others formed the control group. The influence of chemotherapy, corticosteroids, stem cell transplantation and bisphosphonates on the development and clinical picture of the osteomyelitis was evaluated descriptively and statistically.

Results: The history of the disease, clinical picture, methods of treatment and outcome were similar in both groups. The frequency of wound dehiscence did not differ (Mann-Whitney rank sum test 1.66 ± 1.5 vs 1.6 ± 2.1 ; $p=0.393$). Chemotherapy, steroid therapy, stem cell transplantation or bisphosphonate administration did not correlate with the clinical picture (Multiple logistic regression, $p=0.275$). Neither the duration of therapy nor the type of bisphosphonate influenced the course of the disease (negative Fisher's test, $p=0.273$ and $p=0.576$ respectively). Settlement of Actinomyces in the exposed bone was characteristic for the bisphosphonate group (positive Fisher's test, $p=0.021$).

Conclusion: The jaw osteonecrosis in this study was a consequence of simultaneous and cumulative action of many factors. The role of bisphosphonates was comparable with other predisposing features. Coating the jaws with bisphosphonates could promote settlement of Actinomyces.

Hasła indeksowe: martwica kości szczęk, zapalenie kości, bisfosfoniany

Key words: osteonecrosis, osteomyelitis, bisphosphonates, jaws