Adela Cristina Lazăr. Bisphosphonate therapy in dental medicine. A guide for dentists


This book is of interest for dental practitioners. The pathology of osteoporosis in postmenopausal women is at the intersection of various specialties, such as medical oncology, hematology, oral and maxillofacial surgery, radiotherapy and general dentistry. Bisphosphonate therapy in this category of patients is a challenge for the general dentist and requires interdisciplinary collaboration with results and benefits for the treated patient.

The author is an Assistant Professor at the “Iuliu Hațieganu” University of Medicine and Pharmacy, Cluj-Napoca, Romania. She is a dentoalveolar surgery specialist, well acquainted with bone cancer disease and particularly, with the treatment of patients on bisphosphonates. This subject of interest was also widely discussed in the author’s PhD Thesis, which brought to the academic world a new and topical perspective on this area.

Osteoporosis is a health problem reported worldwide, which predominantly affects postmenopausal women. Considering the relatively high percentage level in this category of population, a treatment plan has been developed to minimize the harmful effects of this bone disease, to restore the women’s general state of comfort and to reintegrate them into society.

Bisphosphonates have been administered in the treatment of osteoporosis since they became available on the pharmaceutical market. Research and continuous progress have led to the development of new generations of bisphosphonates such as denosumab, zoledronic acid, which through their inhibitory effect on osteoclast activity reduce the bone rarefraction process and at the same time facilitate optimal bone regeneration. Like any treatment with strong effects on the entire body, short-term and especially long-term bisphosphonate therapy has a number of side effects, of which the most frequent is osteonecrosis of the jaw (ONJ). This condition predominantly occurs in injectable treatment with one of the types of bisphosphonates used.

In current practice, the general dentist frequently encounters postmenopausal women who received or are currently on bisphosphonate therapy. A well conducted history and collaboration with the treating oncologist or hematologist will provide data on the general disease and will allow good decision making for the initiation of possible dental extractions.

All the figures, pictures and tables presented in this guide belong to the author, except for Figure 3, and were elaborated to illustrate in the best possible way the development and treatment stages of ONJ. The images are part of the author’s doctoral research.

The book guides the reader from the anatomical aspects of bone tissue to the clinical aspects of osteoporosis, then to a detailed description of bisphosphonates, bisphosphonate therapy and ONJ, with the presentation of three clinical cases with different stages of ONJ. The chapter on the treatment of osteonecrosis addresses the therapeutic principles of this bone disease and the need for collaboration between the dentist and the treating oncologist or hematologist. In the chapter on the dental particularities of bisphosphonate therapy, the author proposes four essential questions that dental practitioners frequently face regarding certain dental procedures performed in patients on bisphosphonate therapy, and provides competent answers on this topic of wide interest. The final chapter is complementary, offering information and advice to dentists and especially to patients on bisphosphonate treatment.

This guide offered with generosity and competence to dental practitioners will be a reference work useful for all dentists in their daily practice.