Book Review: Osteosclerosis, Hyperostosis and Related Disorders

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Osteosclerosis, Hyperostosis and Related Disorders


The authors have composed an erudite and comprehensive work, the first of its type to be solely directed toward the description of dense bones. Osteosclerosis, as defined by the authors, denotes a state of increased trabecular bone, whereas hyperostosis indicates an increase in cortical bone thickness not necessarily resulting in a greater bone width. The book is a compendium of diverse conditions which share a single feature, radiographic evidence of increased bone density.

A broad range of disorders are compiled, including such diverse categories as neoplastic disease, inflammatory states, metabolic bone disorders, chemical and vitamin intoxications, endocrine dysfunctions, vascular insufficiency, bone dysplasias, and arthritides. Considering the heterogeneity of the subject matter, a novel classification of the disease states is devised. Clinical conditions are described according to presenting features, chemical profiles, histological findings, and etiopathogenesis in addition to delineating the diagnostic radiographic and scintigraphic characteristics. The excellent radiographs add insight and clarity to the text.

Mechanisms that account for excess in bone volume are explored in detail, outlining controversies and highlighting aspects in need of further investigation. In an introductory chapter the authors explain the current concepts of bone physiology, in particular the intermediary organization of the skeleton which regulates processes of bone modeling and remodeling. Disordered bone modeling and remodeling presumably contributes to the occurrence of osteosclerosis and hyperostosis. Many hormonal and bone-derived factors which also appear to play a role are reviewed later in the text.

In view of the original nature of the work, the authors invite readers to inform them of new cases in the expectation that the description and nosology of dense bones will continue to evolve. This could begin a registry for the rarer bone disorders, a great need in this area of research. The book certainly meets its stated purpose of assisting physicians in the evaluation of patients who present with either osteosclerosis or hyperostosis. It is highly recommended both to specialists in the field as a reference text and also to internists and students seeking information on the topic.

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