



ROOT CARIES: FROM PREVALENCE TO THERAPY

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This textbook in the 'Monographs in Oral Science' series gives a thorough overview of the epidemiology, pathology, prevention and management of root caries. Multi-authored from a worldwide selection of academics, the book consists of 15 papers, in four sections – epidemiology, biological determinants, lesion assessment and features, and prevention and operative therapies. The volume concludes with an editorial epilogue. The 41 illustrations, mostly in colour, are relevant and clear, despite the illustration on page 86 appearing to be rotated through 90 degrees.

For a multi-authored volume there is inevitably some overlap between sections but there are many intra-volume references, indicating good editorial control. With many authors with (presumably) English as a second language, the text is generally well written – although occasional clunky sentences such as 'Physiological and functional characteristics provide the dental structures a complex identity' do sometimes interrupt the flow and ease of reading.

Depressingly, after more than 40 years of research, the opening chapters on the epidemiology of root caries conclude that as there is still no consensus on the definition of a root caries lesion, and until that happens, meta-analysis of studies is difficult. Similar problems are highlighted in the chapters on progression of lesions where diagnostic criteria such as softness and colour are described as subjective, again making comparison between studies difficult. Despite these problems, there is a general consensus that root caries prevalence increases with age and that once initiated, progresses rapidly to demineralise tooth tissue.

For this reason, risk assessment (chapter 7) to identify those who might develop the disease assumes increasing importance. Many factors have been shown to be risk indicators, but three are particularly highlighted – the number of teeth, the presence

of plaque and previous root caries experience. Multiple other factors include denture wearing, age, xerostomia, limitations in the activities of daily living, smoking and income status. The chapter concludes that if high risk individuals could be identified, prevention strategies could be targeted but that there is 'a lack of any specific protocol/system to assess the risk'.

The chapters on prevention and treatment highlight the importance of biofilm control and the use of fluorides, applied professionally and/or by the patient. Newer therapies such as functional peptides, phosphate based strategies, lasers and dentine modifying agents are discussed in separate chapters but conclude that there is a lack of evidence for their effectiveness.

The authors conclude that further research is required to assess the most appropriate material to restore root caries lesions. The book ends with an author list and a three page index.

The editorial epilogue summarises the previous chapters and concludes that our world is changing. Worldwide, it is estimated that the numbers of people aged 65+ will almost double between 2025 and 2050. Epidemiologists suggest that there will be a decline in acute and infectious diseases and increasing concern about chronic and degenerative diseases. From a dental point of view, root caries is an example of such a disease and presents a 'threat to the oral health, well being and quality of life' of older people. Root caries continues to present a major challenge to the profession in the coming decades. This timely book summarises the state of play in research, prevention and management of the condition and highlights the need for further research in all areas. The book would be a useful addition to all dental school libraries but at £125.00 probably won't make it to the shelves of individual students or practitioners.

Paul Hellyer