THIRD EDITION

ORAL & MAXILLOFACIAL MALEDICIAL

The Basis of Diagnosis and Treatment

CRISPIAN SCULLY





















Oral and Maxillofacial Medicine

THE BASIS OF DIAGNOSIS AND TREATMENT

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Oral and Maxillofacial Medicine

THE BASIS OF DIAGNOSIS AND TREATMENT

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Preface to third edition

I am pleased to say that the first two editions were so well received and popular, that there have been multiple reprints. The first edition was awarded the First Prize of the Royal Society of Medicine and Society of Authors for a new authored book and the second edition was Highly Commended in the British Medical Association Book Awards.

In the preface to the first edition I noted I would be delighted to receive any comments about the text, but received no suggested improvements. Therefore, to reassure myself, the publishers have had the book peer-reviewed blindly, and I have incorporated suggestions received. Further, to ensure the book continues to be up-to-date, I have again taken the opportunity to refine and restructure; to thoroughly revise, clarify and update the text and the Further reading and Useful websites.

I have also added new material and clinical pictures, tables, boxes and algorithms. Advisers have requested more information on drug interactions and contraindications, but dissuaded me from adding too many additional clinical pictures, suggesting that Atlases were most suitable for these.

I have also increased the content in terms of expansion and rearrangement of the section dealing with potentially malignant disorders and cancer; added new material on the genetic influences in many conditions; and added some fairly recently recognised relevant conditions including various adverse drug reactions, autonomic neuropathies, drug-induced hypersensitivity syndrome, hypereosinophilic syndrome, immune reconstitution inflammatory syndrome (IRIS), IgG4 syndrome, lichenoid and granulomatous stomatitis, trigeminal autonomic cephalgias (TACs), TUGSE (traumatic ulcerative granuloma with stromal eosinophilia), and a new oral mucosal condition similar to orofacial granulomatosis described in solid organ-transplanted children.

Finally, I have also expanded therapeutics – including emergent therapies. Few of the agents used in oral medicine have been produced specifically for orofacial diseases, many also being employed in other fields such as dermatology, rheumatology and gastroenterology and their use in orofacial disease is

often 'off label'. Some complementary medicine products are also increasingly in use, with an even weaker evidence base. Few agents have thus been tested in randomized controlled double blind clinical trials but, nevertheless, I have endeavoured to highlight the level of evidence for the various therapies most commonly used and introduced a 'likely benefit' scheme similar to that used in *Clinical Evidence* – the British Medical Journal publication. There will always be some controversy between the categories 'likely to be beneficial' and 'unproven effectiveness'. The evidence base is often sparse and changing but patients must be offered some help and hope.

Drug doses quoted are for healthy adults only and must be reduced in children and older and/or ill patients. Contraindications to drug use are often relative and not absolute, and drug interactions can range from potentially lethal to theoretical only. Doses, contraindications and possible interactions should always be checked with an authoritative source.

In any book there is always a potential conflict between the need for basic and more advanced knowledge: I have endeavoured to address this by including some boxes on the basic causes of conditions, along with expanded versions including more advanced lists.

My additional thanks also are again to Prof Mervyn Shear and Dr David Wiesenfeld for advice; to Dr Aubrey Craig of Medical and Dental Defence Union of Scotland for occasional guidance; to Drs Rachel Cowie, Rachael Hampton and Yazan Hassona for clinical assistance, to Dr Mo El-Maaytah for figure 56.2, to Dr Tony Brooke for figure 53.9 and also to Drs Andrew Robinson, Eleni Georgakopoulou and Dimitris Malamos for constructive comments on the previous edition.

CS 2013

No-one who achieves success does so without acknowledging the help of others.

Alfred North Whitehead

Preface to second edition

I am pleased to say that the first edition was very well received and proved popular. Indeed, the book was awarded the First Prize of the Royal Society of Medicine and Society of Authors, for a new authored book.

Nevertheless, I have taken the opportunity to restructure; to thoroughly revise and update the text; to reformat where this could enhance clarity; to add new material and clinical pictures and some basic histopathology, tables, boxes and algorithms; to add new chapters on sialorrhoea and drooling, other conditions, and adverse drug reactions; and to update Further reading.

My additional thanks are to John Huw Evans for his technical assistance, to Dr Stefano Fedele for his comments overall, to Dr Mohamed El-Maaytah and Dr Navdeep Kumar for providing a few figures, to Professor John Eveson for kind

permission to use histopathology from our book Eveson, J.W. and Scully, C. *Colour Atlas of Oral Pathology* (1995). Mosby-Wolfe (London) and to Peter Reichart, David Sidransky and Dr L. Barner for permission to reproduce their WHO Classifications from *Pathology and Genetics of Tumours of the Head and Neck* (2005) and to Professor Mervyn Shear for commenting on the Chapter on Odontogenic Cysts and Tumours.

CS 2007

The wise should consider that health is the greatest of human blessings.

Hippocrates

Preface to first edition

Oral medicine is that area of special competence in dentistry concerned mainly with diseases involving the oral and perioral structures, especially the oral mucosa, and the oral manifestations of systemic diseases. The specialty, in some countries termed 'stomatology', deals not only with oral disease but also with perioral lesions, and is increasingly known as 'oral and maxillofacial medicine'. Furthermore, apart from the obvious close relationships with oral pathology (oral and maxillofacial pathology) and with oral surgery (oral and maxillofacial surgery), there is a close relationship with special care dentistry and hospital dentistry.

This book attempts to present for those interested in oral medicine and hospital dentistry, the basics of the specialty of oral medicine in a useful and digestible format; by offering the information in a range of modes and levels of detail and offering practical guidance to diagnosis, therapy and sources of information for patient and clinician, both on the Internet and elsewhere.

The first section reviews the fundamental principles of the history, examination and investigations and principles of management. In the absence of randomized controlled trials, many of the therapies suggested are unable to be thoroughly evidence based. Hopefully, future multicentre studies will rectify this deficiency. The second section discusses the more common symptoms and signs in oral medicine.

The third section covers in some detail the most common and important conditions seen in oral medicine. This section also includes synopses of a number of eponymous and other conditions relevant to oral medicine; if a specific condition is not found there, the reader is referred to the index, since it may well be located elsewhere in the book.

The fourth section is a discussion of the important areas of HIV infection and iatrogenic diseases.

The other relevant oral manifestations of systemic disorders are tabulated in Appendix 1: further detail can be found in *Medical Problems in Dentistry* (Scully and Cawson: Elsevier, Edinburgh, 2004).

Agents used in the treatment of patients with oral diseases are outlined in Appendix 2. Only a limited number of these are prescribed by dental practitioners, but practitioners may have to cope with questions from patients about their treatment, or to recognize or deal with treatment complications. Further details can be found in textbooks such as *Basic Pharmacology and Clinical Drug Use in Dentistry* (Cawson, Spector and Skelly: Churchill Livingstone, Edinburgh, 1995).

An attempt has been made to present the material in such a way as to highlight the more important conditions – important because of frequency or seriousness – and to guide the reader through didactic and problem-oriented approaches. However, it is impossible to position every subject in a perfect location, not least because few conditions affect only one site (e.g. even erythema migrans can have lesions in sites other than on the tongue), some affect even more than one tissue

(e.g. ectodermal dysplasia affects skin, salivary glands and teeth) and several have a range of clinical presentations (e.g. lichen planus and cancer can both present with white, red or ulcerative lesions, and can be symptomless or cause extreme discomfort). Cross-referring between sections will help the user get full value from the content.

The book is not intended to give all the details of the various investigative and therapeutic modalities, since these are covered in other texts by the author, or in pharmacopoeias. The book offers illustrative examples of the more common and important conditions, but cannot provide the more comprehensive selection of illustrations such as can be found in atlases such as *Oral Diseases* (Scully, Flint, Porter and Moos: Dunitz, London, 2004).

I thank my patients and nurses who have taught me so much over the years, and continue so to do, and all those students and colleagues with whom I have worked and interacted, who may have shared the clinical care of some patients, and/or may have knowingly or otherwise contributed ideas or content.

In this respect I thank especially Professors Oslei Almeida (Brazil), Jose-Vicente Sebastian-Bagan (Spain), Johann Beck-Managetta (Austria), Roman Carlos (Guatemala), Marco Carrozzo (Italy), Roderick Cawson (UK), Pedro Diz Dios (Spain), Drore Eisen (USA), Joel Epstein (Canada), Sergio Gandolfo (Italy), George Laskaris (Greece), Jens Pindborg (Denmark; deceased), Stephen Porter (UK), Peter Reichart (Germany), Pierre-Luigi Sapelli (Italy), Sol 'Bud' Silverman (USA) and Isaac Van der Waal (The Netherlands).

Thanks are also due to: Alan Drinnan (USA) for his innovative introduction of the Bulletin Board in Oral Pathology (BBOP), a useful world forum for oral medicine and pathology; to Miguel Lucas-Tomas (Spain), who founded the European Association for Oral Medicine – a major European forum; and to Dean Millard (USA) and David Mason (UK), who had the foresight to institute the World Workshops in Oral Medicine; to John Greenspan (USA) who had the foresight to organize the Oral AIDS workshops; and to Newell Johnson with whom I founded and co-edit Oral Diseases. These giants have helped the progression of oral medicine to the high level at which it now stands.

Much of my work could not be done without the support of my family (Zoe and Frances) and my work colleagues who help with information collection, particularly John Evans, Avril Gardner, Lesley Garlick and Karen Widdowson, to whom thanks are due. I thank Jose-Vicente Sebastian Bagan and Isaac van der Waal, and also my nephew, Dr Athanassios Kalantzis, for their helpful, friendly and constructive comments on the text.

Finally, I would be delighted to receive any comments about this text, in the hope that I can improve further in the future.

CS 2003

Learning aims and objectives

- Describe oral and maxillofacial diseases and their relevance to prevention, diagnosis and treatment
- Explain general and systemic disease of particular relevance to oral health
- Explain the aetiology and pathogenesis of orofacial disease
- Obtain, record, and interpret a comprehensive and contemporaneous patient history
- Undertake an appropriate systematic intra and extra-oral clinical examination
- Manage appropriate clinical and laboratory investigations
- Undertake appropriate special tests and diagnostic procedures
- Assess patients' levels of anxiety, experience and expectations in respect of dental care
- Generate a differential diagnosis
- Formulate an appropriate treatment plan based on the patient assessment and diagnosis
- Describe the range of orthodox complementary and alternative therapies that may impact on patient management
- Refer patients for treatment or advice when and where appropriate
- Explain and manage the impact of medical and psychological conditions in the patient
- Discuss the need for and make arrangements for appropriate follow-up care
- Recognise the responsibilities of a dentist as an access point to and from wider healthcare
- Provide patients with comprehensive and accurate preventive education and instruction in a manner which encourages selfcare and motivation

- Describe the principles of preventive care and incorporate as part of a comprehensive treatment plan
- Underpin all patient care with a preventive approach that contributes to the patient's long-term oral and general health
- Describe in appropriate detail the health risks of diet, drugs and substance misuse, and substances such as tobacco, alcohol and betel on oral and general health and provide appropriate advice and support
- Assess and manage the health of soft tissues taking into account risk and lifestyle factors
- Manage oral disease and refer when and where appropriate
- Describe, take account of and explain to the patient the impact of the patient's health on the overall treatment plan and outcomes
- Evaluate, for individual patients, the need for more complex treatment and refer appropriately
- Recognise all stages of malignancy, the aetiology and development of tumours and the importance of early referral for investigation and biopsy
- Identify and explain appropriately to patients the risks, benefits, complications and contra-indications to medical and surgical interventions
- Communicate appropriately, effectively and sensitively at all times with and about patients, their representatives and the general public and in relation to difficult circumstances, such as when breaking bad news, and when discussing issues, such as alcohol consumption, tobacco smoking or diet.

Intended learning outcomes

This text will deal with oral and maxillofacial diseases and their medical management, and it is intended that, having read this text, the reader will be able to:

- Adopt a systematic approach to medical history taking that extends routine questions into certain relevant areas of enquiry that involve the body in general.
- Examine patients and their oral lesions systematically and use the findings of specific features of the lesion and associated signs and symptoms, to start formulating differential diagnoses.
- Identify which sites may be affected by the presenting condition and what to look for at those sites.
- Identify relevant follow-up questions that may further clarify the findings of the clinical examination and refocus the history.
- Understand when clinical investigations are indicated, which are appropriate, and how to perform these investigations.
- Interpret the findings of routine clinical investigations (e.g. blood test results) and develop a sense of the potential implications for the patient.

- Recognize the scope of oral and maxillofacial diseases and the importance of medical management in addition to the traditional dental focus of the discipline.
- Advise the patient about the aetiology of oral lesions, and predisposing factors.
- Identify lesions and interpret the findings and develop a sense of the potential implications for the patient.
- Understand how prevention may impact positively upon the condition.
- Identify a range of therapeutic options for the patient and understand the need for regular review and re-appraisal of the condition.
- Understand how treatment may impact, positively or negatively, upon the condition.
- Identify the need to refer for advice, investigations or treatment by dental, medical or surgical specialists.
- Recognize the importance of close liaison with colleagues in other disciplines, particularly imaging, medicine, pathology and surgery.

Education is not filling a bucket but lighting a fire

William Butler Yeates