



David H Felix



Jane Luker



Crispian Scully

This series provides an overview of current thinking in the more relevant areas of Oral Medicine, for primary care practitioners.

The series gives the detail necessary to assist the primary dental clinical team caring for patients with oral complaints that may be seen in general dental practice. Space precludes inclusion of illustrations of uncommon or rare disorders.

Approaching the subject mainly by the symptomatic approach, as it largely relates to the presenting complaint, was considered to be a more helpful approach for GDPs rather than taking a diagnostic category approach. The clinical aspects of the relevant disorders are discussed, including a brief overview of the aetiology, detail on the clinical features and how the diagnosis is made, along with guidance on management and when to refer, in addition to relevant websites which offer further detail.

Oral Medicine: 12. Lumps and Swellings: Salivary

Specialist referral may be indicated if the Practitioner feels:

- The diagnosis is unclear;
- A serious diagnosis is possible;
- Systemic disease may be present;
- Unclear as to investigations indicated;
- Complex investigations unavailable in primary care are indicated;
- Unclear as to treatment indicated;
- Treatment is complex;
- Treatment requires agents not readily available;
- Unclear as to the prognosis;
- The patient wishes this.

Salivary gland swelling

Salivary glands usually swell because of inflammation (sialadenitis) (Figure 1), which is often viral but may have other causes (Table 1). Obstruction of salivary flow is another common cause (obstructive sialadenitis) (Figures 2, 3). Rare causes include salivary gland or other neoplasms (Figures 4–7).

David H Felix, BDS, MB ChB, FDS RCS(Eng), FDS RCPS(Glasg), FDS RCS(Ed), FRCP(Edin), Postgraduate Dental Dean, NHS Education for Scotland, **Jane Luker**, BDS, PhD, FDS RCS, DDR RCR, Consultant and Senior Lecturer, University Hospitals Bristol NHS Foundation Trust, Bristol, **Professor Crispian Scully**, CBE, MD, PhD, MDS, MRCS, BSc, FDS RCS, FDS RCPS, FFD RCSI, FDS RCSE, FRCPath, FMedSci, FHEA, FUCL, DSc, DChD, DMed(HC), Dr HC, Emeritus Professor, University College London, Hon Consultant UCLH and HCA, London, UK.

■ Inflammatory

- Mucoceles
- Mumps
- Ascending sialadenitis
- Recurrent parotitis of childhood
- HIV parotitis
- Other infections (eg tuberculosis)
- Sjögren's syndrome
- Sarcoidosis
- Cystic fibrosis

■ Neoplasms (mainly pleomorphic salivary adenoma, but also monomorphic adenomas and malignant tumours)

- Duct obstruction (eg calculus)
- Sialosis (usually caused by autonomic dysfunction in starvation, bulimia, diabetes, or alcoholic cirrhosis)
- Deposits rarely (eg amyloidosis and haemochromatosis)
- Drugs rarely (eg chlorhexidine, methyl dopa, phenylbutazone, iodine compounds, thiouracil, catecholamines, sulfonamides, phenothiazines and protease inhibitors)

Table 1. Causes of salivary gland swelling.

In children, most salivary gland swellings are caused by mucoceles or mumps. In adults, most swellings of the salivary glands are caused by mucoceles (Figure 8), salivary duct obstruction (typically by a stone); but sialadenitis, Sjögren's syndrome and neoplasms are important causes to be excluded.

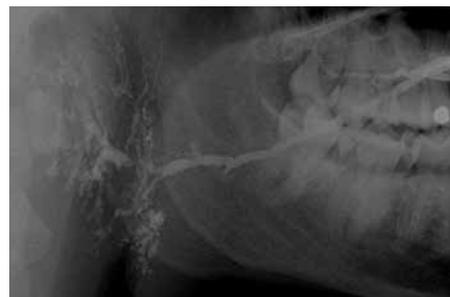


Figure 1. Right parotid sialogram showing dilation of the intraglandular ducts consistent with sialadenitis.

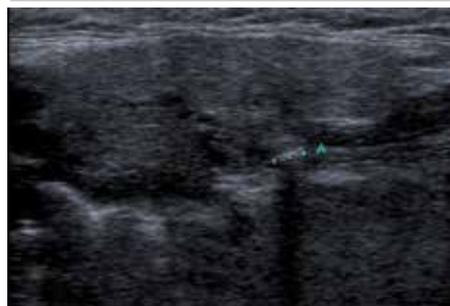


Figure 2. Ultrasound of submandibular gland, stone identified (A).



Figure 3. Left parotid sialogram showing intraglandular ductal dilation and a filling defect at the hilum of the gland consistent with a parotid calculus.

Diagnosis of salivary gland swelling

It can be difficult to establish whether a major salivary gland is genuinely swollen, especially in obese patients. A useful guide to whether the patient is simply obese or has parotid enlargement is to observe the outward deflection of the ear lobe, which is seen in true parotid swelling.

Diagnosis of the cause is mainly clinical but investigations such as imaging (especially ultrasound), liver function tests, serology for viral antibodies autoantibodies or biopsies, may be indicated.

Management

A specialist opinion is usually needed and treatment is of the underlying cause.



Figure 4. Parotid neoplasm.



Figure 5. Well defined area of hypo-echogenicity within salivary tissue consistent with a parotid neoplasm.



Figure 6. Minor salivary gland neoplasm.



Figure 7. Malignant salivary gland neoplasm.



Figure 8. Mucocele, floor of mouth (ranula).

Immediate treatment is needed for acute bacterial sialadenitis; under ideal conditions antimicrobial therapy should be determined by results of culture and sensitivity of a sample of pus from the duct. However, as first line therapy a penicillinase-resistant penicillin such as flucloxacillin is appropriate. In patients

with penicillin allergy, erythromycin is a suitable alternative. In addition, general supportive measures such as analgesia and increased fluid intake are important. Thereafter, specialist referral is generally indicated to identify any predisposing factors. Neoplasms need Specialist attention.

Book Review

Principles and Practice of Single Implant and Restoration

1st edn. By Mahmoud Torabinejad, Mohamad A Sabeti and Charles J Goodacre. London: WB Saunders, 2013 (224pp; £89.99). ISBN 978-1-4557-4476-3.

The beauty of writing a book about the single implant is that you can be fairly specific yet touch on the wider aspect of such treatment. So, when the book arrived on my desk, I was not disappointed, especially as there was a nice large title telling me what the book was about *Single Implant and Restoration*. Also, I was interested to see how Mahmoud Torabinejad, one of my favourite endodontic writers, would make the transition to implant specialist. Well

I do not want to spoil the ending as the book is very good.

Firstly, the book has a nice layout and the navigation through it is straightforward. It has an immediate appeal and this is reinforced by the presence of a summary at the start of each chapter with outcomes. Each chapter is easy to read with high quality illustrations. It is easy to dip into as the chapters are stand-alone. It does have a traditional approach as it starts with the history of implants and then takes the reader onto diagnosis and treatment planning. The sections on bone grafting, placing bone grafts and the implant designs are well laid out and full of information. Other chapters include the basic science behind implants, moving onto restoration procedures. Finally, there are sections on dental

implant maintenance and the relevance of the scientific evidence.

There are some criticisms that take it away from the five star grading. There is a tendency to cover the middle ground and some specifics go unanswered. The dental implant maintenance does not reflect up-to-date publications. The scientific critique is only at the end and it could have been introduced throughout the book. There may have been more detail on different systems that are used in dentistry rather than staying with one.

However, these are minor criticisms of a good book on a topical subject. My recommendation is to go out and buy it!

Damien Walmsley
University of Birmingham
School of Dentistry