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Bilateral maxillary and mandibular fourth molars

Sir, – Two rare cases are presented here where the fourth molars are radiographically uncovered when the patients presented for dental care. Supernumerary molars occur far less frequently compared to other supernumerary teeth in the jaws.¹ When they develop as paramolars or distomolars within close proximity of the third molars, there are chances of fusion with the developing third molars.²

Case 1: A 22 year old African American male patient presented to the oral diagnosis clinic for routine dental treatment. A full mouth series (FMS) radiographs were initially obtained followed by a panoramic radiograph. The panoramic radiograph (fig. 1) revealed four permanent fourth molars within the jaws (UR9, UL9, LR9, LL9). The fourth molars were all present distal to the third molars except the one on the maxillary left quadrant which was smaller in size. It was present mesial and palatal to the third molar (UL8). The two mandibular fourth molars were complete bony impactions. The patient was referred to an oral surgeon for assessment and possible surgical intervention before beginning of any routine dental care.

Case 2: A 19 year old Caucasian male patient presented to the emergency dental clinic with a chief complaint of pain in the right lower quadrant of two days duration. He had difficulty in chewing on the right side and the mouth opening was about 20 mm inter-incisally. On examination, the gingival operculum

around LR8 (48) region was inflamed and tender on palpation. The third molar crown appeared rather large and was covered by the inflamed gingiva distally. A provisional diagnosis of pericoronitis was made and a panoramic radiograph was advised in order to evaluate the third molars.

The radiograph (fig 2) revealed that the LR8 appears to show a possible formation of a supernumerary fourth molar. There are maxillary fourth molars bilaterally (UR9 and UL9) and the mandibular fourth molar (LL9) is impacted radiographically. They all exhibit various stages of root development. The patient was referred to an oral surgeon for the management of the trismus and pericoronitis. A surgical consultation for the removal of all the fourth molars was sought as well.

Cases like these, always remind us of the limitations of the intraoral radiographic examinations and the necessity for a more thorough examination of the jaws using the panoramic and/or other extra oral radiographic views.

M. Mupparapu
Philadelphia, USA

1. Grimanis G A, Kyriakides A T, Spyropoulos N D. A survey on supernumerary molars. *Quintessence Int* 1991; 22: 989-995.
2. Hou G L, Tsai C C. Fusion of maxillary third and supernumerary fourth molars: Case report. *Aust Dent J* 1989; 34: 219-22.



Fig 1. Panoramic radiograph of the patient in case 1 showing the presence of fourth molars.
[Note the absence of UL7 due to a prior extraction and a deep carious lesion in LL8.]



Fig 2. Panoramic radiograph of the patient in case 2 showing the anomalous tooth in the region of mandibular right third molar (LR8) where there is a possible formation of a fourth molar. Note the presence of impacted fourth molars in the rest of the quadrants.

Using rubber dam

Sir, – The truth about rubber dam is that it is a simple, predictable and quick method of isolating teeth for restorative dentistry, especially root canal treatment, which requires access from the occlusal surface only. Dentists that avoid its use make life hard for themselves.

There are many papers that the academics can quote that will refute

Dr Mackay's objections to the use of rubber dam or the use of giromatic handpieces. However, I think he misses the point. Practising life is made so safe and easy by such a cheap procedure. Also the armamentarium required for rubber dam use is so basic. The placement technique is quick and then you can do anything without concern. The access available when rubber dam is in place makes operating very easy. No cheeks or tongues

to fight. Efficient aspiration (as Dr Mackay points out) is now so easy for the nurse that she will love it too.

There are some teeth that are difficult to dam, however simple tricks exist to combat these situations. Once rubber dam is applied you can work very quickly, as you do not have any concerns about maintaining isolation and you have both hands free. Patients actually relax with rubber dam in place, as they do not have

to fight you any more with their tongues or salivary glands. My advice to anyone not using rubber dam is to find a colleague that uses it routinely and ask for a demonstration – see the equipment used and the techniques involved. If Dr Mackay (or anyone else) would like to see my rubber dam technique I would be delighted to show them as I think everyone should be practising and promoting safety in practice.

M. Brady
Chalfont St.Giles

Using rubber dam II

Sir, – Mr J. R. Mackay of Chalfont St Peter (*BDJ* 2002; 193:126) attempts to set out a reasoned argument for his failure to comply with current teaching and practice in the use of rubber dam isolation during endodontic treatment, and asks for evidence to support its use.

Unfortunately, in attempting to cover his apparent lack of the requisite skills, he has entirely missed the point. Yes, rubber dam is necessary to protect the airway. Yes, rubber dam is necessary to prevent irrigant entering the patient's mouth, and Mr Mackay should explore the use of proprietary caulking agents, such as Oraseal (Optident, Bradford). Yes, rubber dam improves access and vision for the operator, and careful technique will preclude the disadvantages referred to. However, the prime reason for the use of rubber dam is to achieve asepsis during treatment, both of the root canal and the operating field.

Most patients requiring root canal treatment are suffering from the disease of periapical periodontitis. It is the dental surgeon's duty and responsibility to treat that disease by the best means possible. If Mr Mackay were a patient suffering from the disease of, say, appendicitis, would he worry if the surgeon decided that the operation would be far easier to perform without a surgical drape, hoping that the nurse's skill with the aspirator would prevent contamination of the operating field, with the potential for access of micro-organisms which may compromise healing and prognosis?

The research evidence that Mr Mackay is seeking, asking a surgeon to carry out treatment without effective rubber dam isolation to see if this results in a lower prognosis, would never be approved by an ethics committee. Ample research is available, however, to show that oral micro-organisms compromise endodontic treatment and to show that rubber dam is well tolerated by patients.^{1,2,3} I myself have never had a single patient ask for the rubber dam to be removed once its purpose has been explained.

May I suggest that Mr Mackay contacts his local postgraduate tutor as a matter of urgency to request a hands-on course in the effective application of rubber dam.

P. Carrotte
Glasgow

1. Kakehashi S, Stanley H R & Fitzgerald R J. The effects of surgical exposures of dental pulps in germ-free and conventional laboratory rats. *Oral Surg Oral Med Oral Path* 1965; 20: 340-344.
2. Sjögren U, Figdor D, Persson S & Sundqvist G. Influence of infection at the time of root filling on the outcome of endodontic treatment of teeth with apical periodontitis. *Int Endod J* 1997; 30: 297-306.
3. Gergely E J. Rubber dam acceptance. *Br Dent J* 1989; 167: 249-252.

Unrestored carious teeth

Sir, – The paper by Levine, Pitts and Nugent (*BDJ* 2002; 193: 99-103) 'What happens to unrestored carious deciduous teeth?' is certain to stimulate debate between general practitioners and hospital/specialist paedodontists.

Having been trained as a paedodontist and been subjected to the dogma of 'must restore', and also having worked in general NHS practice for 20 years, I am, I think, able to see both sides of the argument. I reached two conclusions from the paper (apart from the obvious one that you do not have to restore every carious lesion): first, if primary prevention fails, then secondary can succeed; second, it is the long-term general welfare of a child that is paramount. However, the most important point is that dentists must not regard non-treatment as good child management. Dento-legally, it is vital that you have good records that show that dental, medical, behavioural and social factors have all been taken into consideration when making any clinical decision.

M. R. Young
Leeds

Auditing treatments

Sir, – I would like to congratulate E. J. Atkins, for carrying out this very interesting piece of work (*BDJ* 2002; 193: 85-87). As the author suggests, I think this work will encourage more GDPs providing orthodontic treatment to audit and publish their results. Recently, thirteen GDP members of the Lincolnshire Orthodontic Study Group undertook a similar audit and hope to have their results published in the near future.

M. Heanue
Immingham

Cochlear implants

The cochlear implant is an elective treatment for those who have lost most or

all of their useful hearing in both ears. Figures collected by the Medical Research Council Institute of Hearing show that at the end of the year 2001, more than 1,700 adults and more than 1,600 children had received implants in the UK. Over 200 children will also receive cochlear implants each year.¹

A newsletter sent by the Chief Medical Officer of the Department of Health in May 2002 has highlighted the safety of patients with cochlear implants attending A&E departments.² Cochlear implants consist of an implanted radio receiver and decoder package containing a magnet secured to the skull about five centimetres behind and above the ear, usually but not always palpable, and a removable external microphone/radio transmitter. They can be damaged or exposed by direct trauma, MRI, surgical diathermy, short-wave diathermy and even dental pulp testers. The safety hazards of dental investigations/treatment in patients with cochlear implants do not appear to be mentioned in current textbooks on dentistry. On the contrary, the safety issues for patients fitted with a cardiac pacemaker are relatively well-documented. I presume precautions should also be taken when using ultrasonic scalers and electrosurgery as the cochlear implant is also an electronic device.

It is important that prior to any examination a relevant medical history is obtained. An extended list of conditions that may impinge on dental treatment has been compiled and published recently in a guideline document from the Faculty of General Dental Practitioners (UK). I am pleased that the list has included 'History of organ transplant, implant or artificial joint' and 'Possession of any warning card'.³

No doubt a written questionnaire is useful for obtaining a medical history from patients with hearing difficulties. The confidential medical history form devised by the BDA is certainly very thorough.⁴ Questions such as 'Carrying a medical warning card?' and 'A joint replacement or other implant?' have also been listed.

According to the manufacturers, all cochlear implant patients (or their families) are issued with an identification card containing specific advice, warnings and precautions, with contact details for manufacturers. Patients are advised to carry these at all times. Perhaps in the near future, we may come across a patient carrying such a card in our dental surgery as well!

C. A. Yeung
Manchester

1. www.ihf.mrc.ac.uk/implant/numbers.shtml.
2. Donaldson L. Safety of patients with cochlear implants attending A&E departments. *CMO's Update* 33: 8. London, Department of Health 2002.
3. Faculty of General Dental Practitioners (UK). *Clinical Examination and Record-Keeping*. Good Practice Guidelines: 58. London 2001.
4. British Dental Association. *Infection Control in Dentistry*. Advice Sheet A12. London, BDA 2000

Hygienists using lasers?

Sir, – I am a dental hygienist working for one of the leading private dental practices in the UK. Whilst attending The Larry Rosenthal aesthetic advantage course, both in London and Florida I discovered the benefits of using a soft tissue dental laser in the treatment of periodontal disease. On my return I asked my legal governing body if this was considered to be within the remit of a dental hygienist. Although supportive, the answer was no.

As a dental hygienist I am able to scale beneath the free margins of the gingivae with sharp instruments and periodontal hoes, and I am allowed to use adjuncts to periodontal therapy. Should we with adequate training be able to offer the benefits of a laser as an adjunct in the management of periodontal disease?

I quote the editor of Dental Practice June 2002 article titled lasers are here again, 'all periodontal patients came back telling of how their gums felt much more comfortable, and more startling still, the clinicians probe was showing him that the treated pocket depths were between one and two millimetres less, and the gums considerably tighter, healthier and less congested!'

I am a qualified dental therapist patiently waiting to use my therapist skills in general practice. and this only adds to my frustration. How long do you think I, along with others, will have to wait to not only use my therapy skills but also to be allowed to use the latest techniques available to me? Do you think that the remit of the dental hygienist has taken advancing technology into consideration?

M. Prebble
Watford

Fee structure restrictions

Sir, – Having just completed a section 63 course on TMJ, occlusion, and construction of relevant splints, I wish to raise several comments. . .

Firstly, there were just four out of ten GDP's who were practising within the confines of the NHS. Yet we all received our forms to claim NHS money for our time and travel allowances!

Secondly, although the course was excellent, financial constraints were

mentioned many times, and we were given a small lecture as to what the NHS would fund. Most of these fees would not even cover the laboratory fees for splint construction, let alone help to fund the practice overheads for the time taken to examine, diagnose, take impressions, facebow recordings, and then fit and grind these splints. Even the course leader admitted one could not really provide these services for the NHS fees given. Hence, this course of treatment really could only be funded privately.

I found it quite bizarre that a section 63 course paid ten dentists to learn a procedure that could only be realistically used outside the NHS fee structure. Surely our learned colleagues should voice together and try to change the fee scales for this type of work, or should GDPs continue to send patients with TMJ problems to their local MFU departments? Here they may have radiographs, soft bite raisers, jaw exercises, physiotherapy, and ultrasound, followed by more bite raisers (soft), steroid injections, more physiotherapy, and finally multiple drug regimes ... all to no avail. How much money has been wasted following this course of action?

Although I am surmising, I feel the cost of treating a patient in hospital far exceeds the cost that could be incurred in general practice, even if the fees were raised. This could possibly save the NHS money as the problems are treated at source, and patients will not be clogging up the hospital waiting lists, or wasting highly trained consultants' time. Readers' thoughts would be most welcome.

M. E. Wint
Earlsdon

Dental prescribing

Sir, – For many years NHS dental prescribing has been based on the restricted list in the *Dental Practitioner's Formulary*. Compared with the British National Formulary and bearing in mind the cross referencing between the two publications, the two year gap between editions does not provide for the current speed of change in prescribing practice. In addition the DPF is intended mainly for those involved with primary care and may not satisfy the needs of today's specialist practice. Products for inclusion in the DPF must be licensed for dental use and this, for example, is one issue relating to the current difficulties with saliva substitutes. Also, in order to satisfy the DOH and Ministers that a drug should be included, there needs to be firm evidence based research and a satisfactory level of agreement within the profession. This

may have a bearing upon products such as analgesics and fluoride preparations. For other controversial matters, such as antibiotic prophylaxis, reliance has to be placed on advisory bodies.

These are just some of the frustrations that have concerned the profession and the members of the dental prescribing committees for some time.

Now that we have proposals for extended prescribing by independent nurse prescribers this highlights even further the restrictions and difficulties patiently endured by the dental profession and the need for radical debate. Hopefully the requirement for urgent, wider dialogue has now been recognised in some quarters.

H. D. Edmondson
Birmingham

Dishwasher cure for ulcers

Sir, – A patient has recently reported an interesting way of preventing mouth ulcers: getting a dishwasher. Both she and her father have discovered that this has greatly reduced their frequency of mouth ulcers compared to when they used to wash up by hand.

Also, if they dine with friends who do not have a dishwasher they will develop mouth ulcers within a few days. Have any of your other readers had similar reports?

C. Marks
Southampton

Biopsy procedures

Sir, – I read with interest the article by Diamanti *et al* regarding biopsy procedures in general practice. As a recently qualified practitioner with an interest in oral surgery I was encouraged by the conclusions of the study.

I attended a residential oral surgery course during my vocational training year and now work for one session per week within the oral surgery department of my local dental hospital and would recommend this to all fellow practitioners with a similar interest.

As well as providing opportunities to carry out the biopsies that could be undertaken in general practice it also allows greater access to a wide spectrum of conditions thus increasing diagnostic abilities. As a further point, I questioned the Dental Practice Board regarding the fee for biopsy and, as well as claiming the fee mentioned in the article for pathological examination, was advised to apply under 2221 (other oral surgery) and a separate fee was awarded, based on the specifics of the procedure.

A. B. Jones
Wakefield



Fig 1. Direct view of lingual aspect of right mandibular alveolus showing bone sequestrum protruding through mucosa.



Fig 2. Bone sequestrum viewed in dental mirror.

Bone sequestration from lower 3rd molar region

Sir, – We write in response to Professor Scully's recent letter to the Journal and his published paper in which he describes two patients who developed lingual bone fenestration and subsequent sequestration of a fragment of bone from the lower 3rd molar region.^{1,2} His paper generated correspondence from a number of colleagues (including ourselves) and it is now clear that the condition is more common than previously thought. Your readers may, therefore, be interested in a further brief case report.

Our patient, a 64-year-old Caucasian female, was referred by her general dental practitioner in November 2001. She had attended this GDP 5 months previously with a painful left side of tongue caused by a sharp fragment of bone protruding from the lingual aspect of the mandibular alveolus in the left molar region. The dentist had 'smoothed' the fragment and the pain had resolved. She then developed a similar bony protrusion on the right side.

Our examination confirmed the presence of a mobile, sharp, irregularly shaped spicule of bone (4–5 mms in its longest dimension) projecting from the lingual aspect of the third molar region of the mandibular alveolus (Figs 1 and 2). This spicule was removed by

curettage under local anaesthetic and the underlying rough bone was smoothed with a bur. The mucosal defect healed uneventfully and her discomfort settled.

Of significance, we believe, is the fact that the patient had sustained trauma to her left hypoglossal nerve during biopsy of a granulomatous left cervical lymph node shortly before developing the problem on her left mandibular alveolus. The subsequent hypoglossal nerve palsy caused problems with speech and chewing. She had, however, continued to eat her muesli and we assume that the reduced tongue function had led to hard food fragments being directed onto the postero-lingual aspect of her mandibular ridge instead of between her teeth. This was aided, almost certainly, by the presence of unopposed upper third molar teeth (Fig 3). These teeth have since been extracted.

Interestingly, a history of recurrent aphthous stomatitis was a prominent feature in both of Professor Scully's cases and our patient had experienced RAS for much of her adult life.

P. Friel and D. R. Macintyre
Inverness

1. Scully C. Oral ulceration. *Br Dent J* 2002; 192: 607.
2. Scully C. Oral ulceration: a new and unusual complication. *Br Dent J* 2002; 192:139-142.



Fig 3. Patient's panoramic X-ray showing unopposed upper third molar teeth.