

LETTERS TO THE EDITOR

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ORTHODONTICS

Treating avulsed permanent teeth

Sir, I read with interest the research summary in September's edition of the *BDJ* entitled 'Primary care dentists' experience of treating avulsed permanent teeth'¹ and also the research paper itself.²

The study reported that 39% of respondents had replanted an avulsed tooth before, and that this most often took place in a primary care setting. It is interesting and perhaps unsurprising to note that the vast majority of respondents reported following the British Society of Paediatric Dentistry (BSPD) guidelines on *Treatment of avulsed permanent teeth in children*.³

The BSPD guidelines recommend that a composite-wire type splint is placed to stabilise replanted avulsed teeth, which is sensible given the availability of these materials. The International Association of Dental Traumatology guidelines⁴ also recommend the placement of a splint, but advise that there is currently no evidence base for the best type of splint to use.

Although the materials for composite-wire splints are readily available, they can be somewhat tricky to place, especially in a field contaminated with blood from a traumatic injury, and the wire has to be stabilised whilst all composite elements are polymerised. A more stress-free alternative may be to splint using orthodontic brackets. The benefit

here is that each bracket can be placed individually before the wire is secured, and anecdotally they are much easier to remove and to keep clean. Importantly, the wire can be easily removed and replaced to allow accurate appraisal of tooth mobility and vitality at subsequent review. Naturally they require the availability of orthodontic brackets and modules; however, a small number of these could be obtained relatively cheaply and stored as part of a 'trauma pack' kept handy for this very reason. Indeed, working in secondary care, bracket-wire type splints are the first choice for adult and paediatric patients having undergone dental trauma.

I would also direct colleagues to the very intuitive Dental Trauma Guide (www.bda.org.uk).

CASE REPORT

Improved gum health

Sir, in July 2014, one of us (Rob Stepney) was bitten on the leg by a street dog in Sarajevo. The university hospital prescribed seven days' clarithromycin 500 mg bd. Rob experienced a metallic taste shortly after taking each dose, and, some days into the course, noticed that his gums no longer bled after brushing his teeth. Rob had experienced remission of gum disease on two previous occasions when taking short courses of ciprofloxacin and metronidazole as antibiotic cover for prostate biopsies, but both times bleeding had quickly resumed.

Rob, who has an MSc in Pharmacology, was intrigued at the apparent link with clarithromycin, especially since in this instance the effect on his gum health was prolonged.

At his next three-monthly check-up, Alison Zalinski – his dental hygienist who was unaware of her patient's recent history – noticed a marked improvement in Rob's gum health. This has been maintained over fourteen months. Rob's account of his experience reminded Alison of two recent cases which seemed similar.

Since data are from a retrospective review of everyday clinical records details are incomplete. However, the theme common to the three cases is of improved gum health

following a macrolide antibiotic taken for unrelated reasons – see Table 1.

In 2008, Burrell and Walters reported that the concentration of clarithromycin in gingiva is several times higher than in serum and higher in inflamed than in healthy gum tissue.¹ Although this study involved induction of experimental gingivitis in healthy subjects (through use of a maxillary stent), the clarithromycin schedule (500 mg bd) was the same as given to Rob, though for only six doses.

Along with this evidence of relevant drug distribution, our case histories of patients with gingivitis (although small in number) suggest that a short course of macrolide taken for reasons unrelated to dental health may result in periodontal improvement that lasts and may even increase with time.

Such an effect does not seem to have been reported (or, at least, is not widely known). Have others had similar experiences? If so, it might be worth conducting a randomised trial of these agents in gingivitis patients, with periodontal health and potential adverse events as endpoints.

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1. Burrell R C, Walters J D. Distribution of systemic clarithromycin to gingiva. *J Periodontol* 2008; **79**: 1712–1718.

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Table 1 Patient characteristics, antibiotics taken, and periodontal scores at the last visit before antibiotic use, first routine visit following antibiotic use and at most recent check-up

Patient (sex)	Agent(s) prescribed	Reason	Date	Periodontal scores at visit		
				Pre-antibiotic	Post-antibiotic	Most recent
1 (M) – RS author	Clarithromycin 500 mg bd 7 days	Dog bite	Jul-14	3,3,4	3,3,3	3,0,3
				3,2,3	1,2,1	0,2,3
2 (M)	Ceftriaxone 2 g plus Azithromycin 500 mg 10 days	Pneumonia	Nov-12	X,4,X	X,3,X	X,3,X
				4*,4,4*	3*,2,4*	3*,2,4*
3 (F)	Erythromycin	Chest infection	Oct-13	4,4,4*	4,0,4*	3,0,4*
				4,4,4	4,4,4	0,4,0