



## letters

### Letters to the Editor should be addressed to: Evidence-Based Dentistry, c/o Katy Christomanou, Nature Publishing Group, Houndmills, Basingstoke, Hants RG21 6XS, UK

From Dr PV McCrory

Minocycline gel gives adjunctive improvement to scale and polish. *Evidence-Based Dentistry* 2000; 2:65. The suggestion that a numbers-needed-to-treat figure of 5 was the most relevant description of the clinical trial results described in the reviewed paper demonstrates the dangers inherent in only analysing research without reference its wider implications.

The idea of providing local delivery or systemic antibiotics to the first-world population of patients with the degree of attachment-loss specified for inclusion in the study (probably 250 million individuals or more) is horrifying. Surely the possibility of widespread antibiotic-resistance development and subsequent nullifying of the intended clinical benefits, along with adverse drug reactions and iatrogenic injuries, should be the real concerns.

With regard to the original paper, although not exhaustive, the following criticisms might also have been relevant to the review: examiner calibration, microbiological evaluation and study design.

More specifically, despite brief references to the issues of antibiotic resistance in the discussion, its full relevance was not addressed. Indeed, the suggestion that subgingival delivery modes are effective in eliminating antibiotic resistance must be questioned in the light of available literature.<sup>1</sup> Furthermore, research to which the authors referred<sup>2</sup> reported that the proportion of cultivable aerobic and anaerobic minocycline-resistant bacterial strains increased transiently following subgingival minocycline administration. More generally, the issue of resistance determinants and their potential transfer by plasmid and bacteriophage was not addressed despite available, relevant literature. General antibiotic prescribing for populations in the catchment areas and the use of antibiotics in regional animal husbandry were not acknowledged as potential factors. This is particularly important given the failure of one centre to demonstrate a significant difference between control and treatment groups.

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1. Larsen T, Fiehn NE. Development of resistance to metronidazole and minocycline in vitro. *J Clin Periodontol* 1997; 24:254–291.

2. Preus HR, Lassen J, Aass AM, Ciancio SG. Bacterial resistance following subgingival and systemic administration of minocycline. *J Clin Periodontol* 1995; 22:380–341.

From Ravi Saravanamuttu

Derek Richards wonders why the public's confidence in scientific research is low.

I can tell him.

It is because those who communicate the results of scientific studies to the public like to simplify the conclusions so that they are easily digestible. Unfortunately the implications of many studies (unless the evidence is overwhelming) are not conclusive.

A prime example is the editorial entitled 'Floss or Die?' in *Evidence-Based Dentistry*. As stated in the editorial, there is no Gold Standard level A evidence to date that defines the link between oral infection and coronary heart disease. He states that, 'These [studies] would be difficult to conduct'.

Well, I'm sorry, but if there is no level A evidence how can he state, 'We were wrong?' The evidence for this statement is based only on those few studies and meta-analysis (not an infallible manipulation of trial data)<sup>1,2</sup> carried out to date. This is not necessarily the same as the truth.

I look forward to seeing real evidence before we draw any conclusions.

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1. Anon. Magnesium, myocardial Infarction, meta-analysis and megatrials. *Drug Ther Bull* 1995; 33:25–32.

2. Eggar M, Davey Smith G. Misleading meta analysis. *BMJ* 1995; 310:752–754.