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Study limitations

Sir, I read with interest the recent article on gag reflex (*BDJ* 2006; 201: 721-725) but would point out that a randomised double blind clinical trial (RCT) with cross-over on the effect of acupressure on controlling the gag reflex while taking maxillary impressions has been published previously, demonstrating no apparent beneficial effect.¹ While the same meridian points are stimulated for either acupuncture or acupressure, the possibility that one may be more efficacious than the other can only be established if a similar RCT methodology is followed for both.

In that regard, the following comments could be constructive for any future research. Firstly, the title of the article describes it as being an audit, when in fact it was a non-randomised clinical trial. Had it been an audit, the stated aim 'to test if acupuncture was able to control the gag reflex' would have been accepted as proven, and the study would have investigated operator compliance with clinical standards of relevance to acupuncture instead.

Secondly, the need for ethical approval for the study was dismissed because an informal enquiry to a local ethics committee had deemed it unnecessary so long as the acupuncture would be a supplement to the dentists' usual techniques for controlling the gag reflex and no placebo procedures would be involved.

The study's methodology then describes that the first maxillary impression was done normally while the second one was carried out after acupuncture, in order to measure the difference in gagging between the two. However, unless each second impression was also clinically required for every patient's dental treatment, ethical approval should have been sought. Equally, unless the participating dentists' usual technique for controlling the gag reflex was always nothing, the use of acupuncture to test its potential efficacy would have committed them to unethically refraining from using any, for fear that otherwise would confound the results.

Next, the authors describe the use of two gagging indices but they fail to calibrate the 21 separate users or to subsequently assess inter-observer parity and intra-observer consistency. However, the main deficiency is that none of the patients were asked to rate their own levels of nausea after each impression, perhaps using a 100 mm visual analogue scale as described elsewhere.¹ While clinicians can use indices to score the severity of gagging in relation to the effect on treatment compliance, only patients can score how nauseous they feel during impressions, bearing in mind that both subjectively¹ and objectively² differences between operator perceptions and patient evaluations exist.

In addition, to ensure that every impression invoked a similar challenge to gag, the standardisation of each of them should have been verified by casting and then measuring the mid-line palatal lengths of the untrimmed study models.¹

Equally, since the operators were not blind, for those patients who might have demonstrated a gag severity on the borderline between two grades of the index, the possibility that a higher grade before acupuncture and a lower grade after being selected cannot be excluded, with a concern that as a result the recorded statistical differences in gagging between the two approaches could be due to bias.

Similarly, the authors discount the possibility of the placebo effect with acupuncture, on the basis that once the first impression had activated a gag reflex, the second would automatically initiate a similar response, unless acupuncture was effective. This view would only be valid if the patients knew that the second procedure was going to be performed in exactly the same way as the first. However, the fact that they knew otherwise might well have raised their hopes to the point where it could have resulted in a placebo response.

It is therefore commendable that the authors suggest an RCT should be undertaken to answer the question

of the potential efficacy of acupuncture in controlling a severe gag reflex, but with the present study's limitations it would be unsound to suggest as yet that the technique has anything definite to offer.

R. A. C. Chate
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1. Chate R A C. PC.6 acupressure for dental nausea: a preliminary report of a prospective randomised double blind clinical trial, Part 1. *Acupunct Med* 1998; 15: 6-9.
2. Lu D P, Lu G P, Reed J F. Acupuncture/acupressure to treat gagging dental patients: a clinical study of anti-gagging effects. *Gen Dent* 2000; 48: 446-452.

The author of the study, Dr Palle Rosted, responds: Thank you for your comment on our paper regarding the use of acupuncture for controlling the gag reflex.¹ We are well aware that a study regarding the use of acupressure in controlling the gag reflex has been published in the past.²

However, it concerns two different techniques, acupuncture and acupressure, which from a neurophysiological point of view have a different mode of action. Acupuncture is an invasive procedure and has both a peripheral and central effect involving neurotransmitters such as enkephaline, dynorphine, serotonin and endorphines.³ Acupressure is a non-invasive procedure, and a complete understanding of the mode of action is still under debate. However, the maximal effect one would expect is a peripheral effect, releasing neurotransmitters such as enkephaline and maybe dynorphine only.

Secondly, the aim of our study was to investigate the possible effect of acupuncture on the gag reflex and not on nausea. We accept that gagging and nausea in many ways can be triggered by the same type of stimulation, touch, smell etc, but they represent different stages of a process which might culminate in full blown vomiting. Furthermore gagging is a rather simple reflex, whereas nausea is a more complex reaction.

In our study, the aim was to investigate if acupuncture made a difference

in the severity of the gagging, assessed by previously tested scales,⁴ and if there was a difference in the number of patients who accepted dental treatment before and after acupuncture. We demonstrated a total change in the attained variable of 53% ($p < 0.001$). Moreover, we demonstrated that prior to acupuncture 37 out of 37 patients did not accept dental treatment; after acupuncture 30 patients out of 37 patients accepted dental treatment.

In the study regarding acupressure the endpoint was to assess if a reduction in the sensation of nausea related to taking a maxillary dental impression could be noticed.² In the mentioned study there was no difference in the outcome in the acupressure and placebo group.

However, this is not surprising. In both cases pressure was delivered on the forearm. In the test group on a well known acupuncture point (PC-6), in the placebo group on a random point on the forearm. However, this is not a true placebo procedure and does not tell us anything about the efficacy of acupuncture.

The correct conclusion should have been: pressure on the forearm seems to give a mean reduction in nausea of 30% in both groups. Apparently there is no difference if the pressure was delivered to an acupuncture or a non-acupuncture point.

Unfortunately, this misinterpretation is not uncommon in acupuncture studies as researchers often forget to analyse the neurophysiological mechanism behind the intervention. Pressure on the forearm will in all circumstances activate the spinal segments and thus will at least give a segmental effect involving enkephaline and dynorphine mechanism. If a central effect will occur, involving release of endorphine and serotonin at all is dubious.

As a consequence of these major differences in the two studies^{1,2} a direct comparison is not possible.

Dr Chate mentioned correctly that our study should have been done as a proper RCT, and we agree. However, we have at no stage pretended that this study was a proper designed RCT. Moreover, Dr Chate mentioned that it is essential if the second impression taking was clinically required. As none of the test patients accepted an impression on the first attempt, the second attempt was obviously clinically required.

1. Rosted P, Bundgaard M, Fiske J et al. The use of acupuncture in controlling the gag reflex in patients requiring an upper alginate impression: an audit. *Br Dent J* 2006; 201: 721-725.
2. Chate R A C. PC.6 acupressure for dental nausea: a preliminary report of a prospective randomised

double blind clinical trial, Part 1. *Acupunct Med* 1998; 15: 6-9.

3. Stux G, Pomeranz B. *Acupuncture textbook and atlas*. pp 1-34. Berlin: Springer-Verlag, 1987.
4. Fiske J, Dickinson C M. The role of acupuncture in controlling the gagging reflex using a review of ten cases. *Br Dent J* 2001; 190: 611-613.

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Stranded candidates

Sir, while immigrant doctors and dentists face an uncertain future in the UK, it is surprising to note that the Department of Health (DoH) has drawn up a plan to offer voluntary work overseas to about 10,000 young British and European medics who are unable to find jobs in the NHS. How many dentists will be sent overseas remains to be seen. The NHS has drawn up this plan following the botched introduction of an online job appointment system, which could leave thousands of junior doctors without training places. The priority for appointment has been given to UK graduates and those from Europe. It would be good if the DoH could reserve a specific number of places for candidates who have passed their dental licensing exams and are stranded in the UK without jobs.

Meghashyam Bhat
Manipal

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Draconian advice

Sir, the recent 'edict' from the Chief Dental Officer regarding single use for endodontic reamers and files is a poorly thought out 'knee jerk' reaction that smacks of politics rather than the application of evidence-based dentistry and is ridiculous to say the least. The facts are as follows:

- The unpublished evidence for the presence of prions in dental tissues was carried out in mice using very high levels of the protein. However, to date, the prion has never been found in human dental pulp in patients with CJD¹
- The UK Department of Health (DoH) in 2003 concluded that there was little evidence for prion transmission within the dental clinic, mirroring our knowledge of Hep C and HIV and that the risk of transmission of vCJD in a single dental procedure from an infected patient would be one billion times less than for a tonsillectomy (also remote) and ten times less if infected dental pulp was involved²
- In December 2001 the DoH withdrew its advice to surgeons regarding single use of tonsillectomy instruments due to the increased incidence of post operative complications. Evidently,

complications were a more important consideration than the possibility of vCJD transmission

- Even by loose association there is no real evidence of human to human transmission of CJD or vCJD following casual or intimate contact or blood transfusion, nor is there evidence of iatrogenic transmission of vCJD in a health care setting.³

Does the CDO know that the practice of endodontics involves more than files and reamers and that many more instruments are in contact with dental pulp during a single procedure? How about handpieces for access cavity preparation and rotary NiTi? Don't access cavity burs get contaminated? What about Gates Glidden drills, endodontic explorers, excavators and rubber dam clamps? When I look at these instruments after a procedure on a vital pulp they are covered in blood products. As everything we use in endodontics comes into contact with blood and pulpal tissue shouldn't everything be discarded after single use?

The cost of root canal instruments both hand and NiTi must be taken into consideration. Does the CDO really think that dentists in NHS practice can absorb the cost of single usage and still provide some sort of quality service? Is it his plan to undermine dentistry in the UK, reduce NHS costs and thus push more dentists into the private sector, or perhaps to push endodontics into the dark ages of the 1930s and 40s when many teeth were extracted due to the theory of 'focal infection'?

How on earth can he justify such draconian advice with so little evidence related to a disease whose incidence in the UK is so low – 158 deaths in the 12 years to 2006?⁴

Please Mr Cockcroft, this needs a rethink!!

J. Webber
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1. Blanquet-Grossard F, Sazdovitch V, Jean A et al. Prion protein is not detectable in dental pulp from patients with Creutzfeldt-Jakob disease. *J Dent Res* 2000; 79: 700.
2. Department of Health Economics and Operational Research Division. *Risk assessment for vCJD and dentistry*. London: Department of Health, 2003. http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4084662
3. Azarpazhooh A, Leake J L. Prions in dentistry – what are they, should we be concerned, and what can we do? *J Can Dent Assoc* 2006; 72: 63-60.
4. Andrews N J. *Incidence of variant Creutzfeldt-Jakob disease deaths in the UK*. Edinburgh: The National Creutzfeldt-Jakob Disease Surveillance Unit, 2007. <http://www.cjd.ed.ac.uk/vcjdqdec06.htm>

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Pass me the forceps

Sir, how fantastic that we were told to throw away endodontic files and treat them as single use by Radio 2! There has been some suggestion about the possible transfer of vCJD from endodontic files for some time, yet without any hard core evidence thus far. The idea to discard used files is a 'just in case' suggestion after studies using mice confirmed a theoretical risk. The single use of files is a sensible idea to eliminate the chance of file separation regardless of the possible spread of vCJD.

However, I wonder where this will all end. Will it eventually include single use Gates Glidden drills, finger spreaders, lateral condensers, ultrasonics used in access refinement, Buchanan pluggers or even post preparation drills – 'Just in case'!

I am aware that some practices are offering patients the opportunity to purchase their own endodontic files prior to treatment so the patient is assured the files are new and only used the once. Will the patient take them home and bring them back if multi visits are used? Or keep them 'just in case' they ever require another endodontic treatment? Eventually comes the even bigger problem of UDA value. For a while endodontic treatment seems to be vaguely nudged out of NHS practices due to the cost effectiveness of carrying it out under new UDA fees. Yet if we are to include in this the £30ish price of a set of new Pro Taper files, at least one finger spreader, some #10, #15 ISO stainless steel files then there can be only one outcome ... Pass me the forceps!

D. Baker
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Resident Dentists Group

Sir, I am convener of the 150-strong Resident Dentists Group set up to tackle the problems facing dentists who qualified overseas but who live in the UK as British citizens and permanent residents and who wish to practise here. Although the dentists are EEA (that is, British) nationals, because they do not have an EEA qualification, their qualifications are not recognised.

One problem is a fragmented regulatory system which we believe, when its various elements are considered together, is highly unfair. Dentists from other EEA countries benefit from recognition of their qualifications; even when these do not comply with the European qualification regulations (as with some new Member States), they are treated as

compliant if the dentist has practised in an EEA country for three of the last five years. Yet members of our group with the same qualifications are rejected; so are those from Commonwealth countries where the syllabus is based on that in British dental schools.

Instead, we face the long ordeal of the International Qualifying Examination (IQE). This takes years and costs thousands of pounds. The various exams cover the full range of knowledge and skills from a five year degree course meaning that candidates need to go back and revise literally everything, suggesting that although already qualified and practised for years, this counts for nothing.

The situation has become much worse in recent years because of the Government's policy of recruiting dentists from other countries. It has spent £4 million providing generous assistance to hundreds of overseas dentists to encourage them to work here. Meanwhile, those of us already living here and paying taxes have received nothing. The IQE waiting list has grown to the point that it has now been closed for nearly a year because of hundreds of new applicants from overseas following the Government's recruitment campaign.

There is one crucial difference between us and these recruits from abroad. They have careers already and being able to work in Britain is a career option. For us, because we live here with our families, it is a necessity if we are to practise our profession again. We are therefore calling on the authorities to give priority on the IQE waiting list to candidates who live in the UK. We are asking the Government to fund practical help with refresher training and work placements, so we can keep in touch with our profession. We are also campaigning against the limitation on the number of attempts in the new IQE. In the longer term, we would like to see a more practice-based International Qualifying Programme, a fairer way to demonstrate that we are safe and competent to practise here.

The BDA has recently agreed to open its lectures to our members, which is much appreciated. We have also had constructive meetings with the Chief Dental Officer and the GDC. However, the key stumbling block is the refusal of the Health Minister to remedy the injustice we have suffered as a direct result of her Government's policies.

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