COMMENT

Letters to the editor

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Priority will be given to letters less than 500 words long. Authors must sign the letter, which may be edited for reasons of space.

Head and neck cancer

Further analysis desirable

Sir, Ward *et al.*[1] should be congratulated for their efforts in analysing 154 head and neck cancer (HNC) patients who underwent various combinations of surgery, radiotherapy (RT) and chemotherapy, with RT administered in all cases. The primary endpoint was identifying potential connections between the timing of pre-RT dental extractions and the post-RT osteoradionecrosis (ORN) incidence. The authors were unable to demonstrate any connection, which might be related to several critical problems. First, RT indications, portals and doses may vary significantly among tumours, like the nasal cavity tumours. Similarly, patients were treated with four distinctive options: surgery followed by RT or concurrent chemo-RT (CRT), RT alone, or CRT. Given that prior surgery, CRT, tumour location and size, level I–IIA nodal involvement, mean mandibular dose and post-treatment dental extractions are the main determinants of ORN rates,[2,3] the study population's heterogeneity may have reduced actual ORN rates to 1.30%, as opposed to the 4.16% reported in Jiang *et al.*'s meta-analysis.[3] In the absence of such information, present research findings should be interpreted with caution to avoid undervaluing the actual risk of ORN in such patients. Otherwise, it might be misconstrued as an evidence-based justification for skipping scheduled post-treatment dental appointments, which are already difficult for all patients to achieve (only 44.40% in our previous research).[4]

Secondly, as 99% of all patients obeyed the recommended ≥10 days' healing time before the RT/CRT, it is impossible to deduce that the increased ORN risk was unrelated to the timing of dental extractions. Yet, this finding may imply that delaying scheduled RT following dental extractions for >10 days is unnecessary. Further, our unpublished data dictate that patients who had ≥5 pre-CRT dental extractions had a substantially higher risk of ORN than those with <5 extractions (30.0% vs 0.0%; p <0.001) despite an interval of ≥12 days. Although this result might be explained by higher surgical stress following many tooth extractions, it may also emphasise a deteriorated general oral health condition that imparts to ORN development.[3] Thus, the presentation of data on these critical topics may prove much more valuable if available.

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Dental psychology

Phantom bite syndrome

Sir, we read the paper by Byrne and Taylor with interest as this topic is our research concern.[1]

In our opinion, the patient's management process could be indicative of another condition called phantom bite syndrome (PBS) or occlusal dysesthesia though the detailed characteristics were unknown. PBS is an uncommon condition in which the patient is preoccupied with the dental occlusion and does not correspond to any physical alteration and causes significant functional impairment.[2] Interestingly, in many cases of PBS, the first mild discomfort is often associated with certain dental treatments such as simple restoration or orthodontic treatment, before it becomes worse after further occlusal adjustment or extensive dental interventions.[3] This, aligned with the patient's mental fixation on their teeth following direct restoration, although there is no clear description of whether the initial chief complaint was related to occlusal discomfort or not. Moreover, the patient described other somatic symptoms (eg overwhelming anxiety, claustrophobia, lack of sleep, subsequent alcohol use, a desire to harm themself) as consequences of occlusal alteration and therefore requested restoration removal. These clinical aspects were also listed as one of PBS's typical manifestations, in which the patients usually emphasise that 'their occlusal problems lead to concomitant somatic symptoms in other body parts' and 'all of their somatic dysfunctions would be cured if and only if their bites are corrected'.[3] However, typical dental treatments normally make the PBS symptoms worse, even if they could achieve temporal improvement.[2,4]

In terms of comorbid psychiatric disorders, the authors suggested: 'whilst this patient had a history of depression and anxiety, their medical history was not unusual considering their dental presentation'. This statement might lead to an impression of severe psychological distress after dental intervention could be attributed to psychiatric disorders if any. However, this might not be the case, since psychological distress is remarkable even in PBS cases without any psychiatric history and could result in serious consequences on patients' life, even suicidal thoughts.[3,4]

PBS is rare but distinguishable, if ever encountered, and for typical patients dental treatment would not be helpful and should be avoided, since it often affects patients iatrogenically for the worse.[3] As in our

reported case, some patients could be very sensitive to their occlusal changes and show a variety of psychosomatic symptoms.[5] Therefore, we agree with the authors' conclusion highlighting that minimal intervention should be considered initially, not invasive irreversible treatment.

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Pain management

Percussion therapy in dentistry

Sir, in recent times, there has been an increase in percussion therapy massage devices on the market. This involves rapid vibrations and pulsing movements penetrating overworked muscles after workouts; however, there is currently very little scientific evidence on their effectiveness.[1]

The COVID-19 pandemic has been incredibly tough for everyone; adults have had less social interaction, more people are working from home, children have uncertain and confusing futures. This period has led to diminished dental health leading to TMD, bruxism and myofascial pain.[2] Current treatment involves painkillers, soft occlusal bite guards and relaxation techniques. We question whether percussion therapy could be used to soothe the muscular pain in the head and neck. Evidence from 20 years ago suggested excellent results in the management of facial pain.[3]

For obvious reasons, one would not normally suggest applying repetitive forces anywhere near the cranial region; however, many of these devices allow softer attachments, reduced vibrations and lighter force which could be altered for treatment of the muscle of mastication. As with any medical device, appropriate instructions would need to be provided to patients to ensure they are using the device correctly, and are aware of the potential side effects of failing to follow guidance. Although rare, serious complications have been associated with these devices.[4]

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Oral health

New Japan dental policy

Sir, Prime Minister Kishida in Japan will launch a new policy of requiring all Japanese citizens to undergo dental checkups.[1] All citizens in Japan will receive a dental checkup once a year, which is currently mandatory through high school. However, a serious problem with mandatory dental checkups for all citizens is that dental checkups alone do not improve health. Dental checkups and treatment can improve health. In other words, the mandatory policy should include dental checkups and treatment.

The COVID-19 pandemic added to the problems of dental care and interfered with dental patient visits.[2] The latest study in Japan showed that the COVID-19 pandemic has been disturbing dental checkups.[3]

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Vaping misrepresentations

Sir, we read with interest a recent research paper[1] and 'Research Insights' summary[2] on the erosive potential of 'vapes'.

We were disappointed to see several basic errors and misrepresentations. We would like to correct the five most major errors:

- E-cigarettes do not contain tobacco and should not be categorised as such[3]
- The authors incorrectly claim that nicotine causes a 'high risk of oral and whole-body health complications'. They cite a WHO poster which presents the effects of whole tobacco smoke on health, not the effect of nicotine. Nicotine has been used in the form of NRT for over 30 years, including in pregnant women, and is regarded as extremely safe, even for long-term use
- The authors claim that e-cigarettes are associated with cancer. The supporting reference does not make this claim and in fact states 'no long-term evidence related to oral and systemic health effects exist'
- The authors state that 'diacetyl is found in most flavoured vapes'. Again, the supporting reference is inappropriate and did not assess diacetyl levels in any way. Moreover, diacetyl is banned as an ingredient from e-cigarettes and e-liquids in the UK
- The authors grossly misrepresent the public health guidance on e-cigarette use as a smoking cessation device. For example, they cite a 12-year-old WHO document (a lifetime in e-cigarette policy!) There is a lack of balance in the material cited; the positions of PHE and NICE on the usefulness of e-cigarettes in smoking cessation, and their relative safety compared to tobacco cigarettes, are not acknowledged.

The experiment itself appeared technically sound. It was encouraging that the nicotine containing e-liquids (used by the vast majority of vapers) had an alkaline pH.

A major limitation of the study is that it is not representative of the real-life scenario. The data should not be over-interpreted, and further *in vitro* modelling studies and clinical studies are needed. Our research group has previously explored this subject using a state-of-the-art research vaping machine, designed to simulate human use. Preliminary data showed minimal changes in pH even after prolonged vaping sessions (data unpublished).