

pregnancies not exposed to teratogens. The rate of major anomalies was not significantly different between the groups and there was no difference in the rate of miscarriages, gestational age at delivery, or birth weight.¹ The results suggest that use of dental LA, as well as dental treatment, during pregnancy does not represent a major teratogenic risk and there seems to be no reason to deny pregnant women these interventions.

Currently, the most widely used local anaesthetic agent in dentistry is lidocaine, which was originally marketed in 1948.² LA cross the placenta in varying degrees. The concentration in the foetal circulation in descending order are by prilocaine, lignocaine and bupivacaine.^{3,4} In addition the dose of adrenaline used in lignocaine is so low that it is unlikely to significantly affect uterine blood flow and the benefits of its incorporation justify its use.^{5,6}

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Safe intrapulpal anaesthesia

Sir, we read with great interest the article (*BDJ* 2015; **219**: 439–445) on symptomatic irreversible pulpitis. The intrapulpal injection technique (IPI) is commonly preferred in situations where patients encounter pain during pulp extirpation, especially in a hot tooth condition. The most significant factor contributing to the success of IPI is that its administration must be done under pressure. Monheim has suggested that prolonged pressure may lead to degeneration of nerve fibres in many instances leading to profound anaesthesia.¹ Various suggested methods that aid in pressure build up in such cases include obliteration of a large pulpal opening with either gutta-percha or a cotton pellet.²

In the *BDJ* article, under the section: Step Three – Intrapulpal Injection (IPI), a variation of the conventional IPI technique is given, ie use of a gutta-percha bung to aid in

pressure build up for profound anaesthesia, which has been developed and used by the restorative team at the Leeds Dental Institute. However, no reference was cited with regards to this. The paper also states that after access and de-roofing of the pulp chamber, IPI is administered followed by effective haemostasis achieved with a cotton wool pledge (CWP) soaked with local anaesthetic or haemostatic agents or sodium hypochlorite (NaOCl). However, Vidhya *et al.* studied the chemical interaction between lignocaine hydrochloride (with and without adrenaline) and NaOCl by using nuclear magnetic resonance (NMR) spectroscopy and reported the formation of a toxic precipitate, 2,6-xylydine, which is a known carcinogen.³ Hence, the immediate use of NaOCl for achieving haemostasis following intrapulpal injection with lignocaine hydrochloride (with or without adrenaline) should be avoided.

As stated by Birchfield and Rosenberg, the anaesthetic effect of the intrapulpal technique is mainly due to the back-pressure of the solution, independent of the type of solution injected.⁴ Hence, 0.9% normal saline can be employed for achieving intrapulpal anaesthesia to avoid potential interactions between lignocaine hydrochloride and NaOCl.

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Multidisciplinary management Inflammatory bowel disease

Sir, an increased incidence of dental conditions with inflammatory bowel disease (IBD) patients¹ suggests that dentists should play an active role in the multidisciplinary team managing them through recognising the associated oral conditions and screening for malnutrition and medication side effects.

Oral disease appears to be more prevalent in the benign and particularly active IBD population compared to a healthy

population.¹ The association between caries and the IBD population is well documented with children having statistically significantly higher rates of dmft compared to healthy controls.² With periodontal disease, incidence of clinical attachment loss was doubled in an IBD population *versus* control so surveillance could identify these conditions before they precipitate disease.³

IBD presents in the oral cavity as non-specific, recurrent, long lasting aphthous ulcers, which are treated through control of intestinal disease. Dentists should be aware of severe manifestations of IBD including cobblestoning of the lips and abscesses of the buccal mucosa. Routine dental appointments could identify signs of early flare activity that can be treated earlier to improve prognosis. It is theorised that oral inflammation may precede intestinal manifestations of IBD.⁴

Malnutrition, a cause of non-specific oral lesions, is extremely prevalent within the IBD cohort. Community outpatient appointment checks have identified one in four patients as being in a state of malnutrition.⁵ Deficiencies of iron, B₁₂ and folate manifest with characteristic features identified during dental screenings. IBD medications are generally potent immunosuppressant agents; methotrexate can cause ulcerative stomatitis and gingival ulceration, and purine analogues, such as azathioprine or 6-mercaptopurine, can lead to an increased risk of presentations of lymphoma⁶ which can be identified in a simple head and neck examination. Dentists can play a vital role in tailoring appropriate medication by recognising side effects on oral examination improving patient outcomes.

Dentists with IBD patients should liaise with general physicians and hospital gastroenterology services regarding concerns within the oral cavity, while doctors should encourage patients to attend oral check-ups.

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