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apical patency which aids in drainage of the abscess through the canal.² A considerable amount of time should be given for this procedure. Once the abscess is drained, root canal therapy can be continued or if time is a constraint, a closed dressing should be given, and the patient recalled after 24 hours for review and continuation of the RCT

3. Thorough root canal debridement during the first session is vital for minimising the possibility for spread of infection in addition to incision and drainage of the abscess.³

In our clinical experience of over ten years in managing odontogenic infection and sepsis, initiation of RCT with drainage through the canal is effective in reducing patients' pain, swelling and minimising the risk of spread of infection to tissue spaces.

S. Bhatia, S. Kohli, Kuala Lumpur, Malaysia

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Hypochlorite injuries

Sir, a 50-year-old female presented on 29 November 2019 complaining of tenderness in her right cheek area, reduced sensation at the right corner of her lips and a dent in her cheek. It transpired that during second stage root canal treatment at 14 on 12 December 2018 a hypochlorite injury occurred. The notes of the treating dentist report that a radiograph revealed the working length to be too short and length was increased, and that on the final irrigation with hypochlorite the patient complained of pain. The procedure was stopped, the patient was asked to rinse with distilled water and the root canals were flushed with distilled water. The patient was informed of the incident and advised to take ibuprofen. When she left the surgery she was not in any pain. A radiograph did not show any evidence of lateral perforation or excessive apical preparation.

The patient contacted the practice later that day to say that the swelling had increased, she had called 111 and been advised to attend hospital whereupon she was given antibiotics and an appointment with an oral and maxillofacial surgeon who prescribed further antibiotics, and later, prednisolone. The patient was having difficulty with drooling due to reduced sensation, had a hard lump adjacent to 14 and an area of fat atrophy.

The soft tissue defect and area of reduced sensation one year following the hypochlorite injury are shown in Figure 1. The patient is considering surgery of fillers for the soft tissue defect.

Suggested strategies to reduce the damage of hypochlorite injuries include:^{1,2}

- Immediate and copious irrigation with saline or water for 15 minutes
- Ice pack compression for 24 hours followed by warm compress for 24 hours
- Analgesics to manage pain
- Antibiotics to prevent secondary infection
- Consideration of steroid therapy for severe injuries (with referral as required).
 L. Nichols, Surrey, UK

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Fig. 1 The soft tissue defect and area of reduced sensation one year following hypochlorite injury

OMFS

East Grinstead and Whanau

Sir, East Grinstead remains synonymous with one of New Zealand's most famous sons, Sir Archibald McIndoe: the father of plastic and reconstructive jaw surgery. A statue commemorating his pioneering work that surgically, psychologically then socially rehabilitated his patients stands at the end of a high street in the town that did not stare at those profoundly disfigured by their injuries.

That was another conflict and today much has been written about the sacrifices made then and those being made now on the frontline of the pandemic. Nevertheless, from McIndoe's time till today, men and women still stand on another frontline. Sgt Matt Ratana of the Metropolitan Police was on that front line and a few weeks short of retirement, following a long and illustrious career, he fell in the line of duty, serving and protecting all of us. He was also the head coach at East Grinstead, mentoring youngsters away from harmful influences guiding them towards their full potentials through rugby.

It was a fitting and poignant tribute that Matt Ratana from New Zealand should receive an air salute with a fly past over East Grinstead. An aircraft trailing an unbroken line of blue smoke flew over the rugby pitches then ascended to draw a white heart in the same blue sky that McIndoe's patients flew, fought and secured our freedoms in all those years ago.

The East Grinstead Rugby Club and Metropolitan Police are establishing foundations perpetuating his legacy of *Whanau* (pronounced far-now) – the Maori word for: family, health and connection – to guide youngsters, so they don't become lost and to build successful futures using sport in general and rugby in particular. Many youngsters attend at their dentists, requesting gum shields for sport and there are three things we may consider apposite in these circumstances:

- Family: taking an interest in the young patient, making a note in their dental records of their aspirations and achievements, thus ensuring an approach to care that is holistic
- 2. Health: providing gum shields at a cost so profit is not a barrier to providing protection
- Connection: consideration towards making a donation from each gum shield to the Matt Ratana foundation; a small

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price for that freedom for which the supreme sacrifice was paid (donations@ mattratanarugby.foundation).

These are small steps, but they are nonetheless important ones to ask, so that we might follow in the footsteps of two of New Zealand's most revered sons along that high street in East Grinstead.

J. Laszlo, London; M. Jefferies, Little Gransden; C. Patel, Cheshunt, UK https://doi.org/10.1038/s41415-020-2518-2

Pharmacology

Oncology team check

Sir, following on from the paper regarding novel chemotherapy (*BDJ* 2020; **228:** 415-421) I would like to highlight a further category of targeted therapies. The Cyclin Dependent Kinases 4 and 6 (CDK 4/6) inhibitors disrupt cancer cell proliferation and are used in the management of previously untreated hormone receptor-positive, HER2negative locally advanced or metastatic breast cancer. The drugs in this group include abemaciclib (Verzenios),¹ palbociclib (Ibrance)² and ribociclib (Kisqali)³ and are given alongside an aromatase inhibitor.

When planning invasive dental treatment it is important to liaise with the patient's oncology team as it is usually recommended the patient withholds the drug prior to dental treatment. These targeted therapies are given orally in a three week on one week off regime and therefore it is advisable to plan dental treatment in the off week and withhold the drug for at least seven days post-operatively. These drugs cause pancytopenia so haematological investigations including a full blood count should be carried out prior to any invasive dental treatment.

E. Sherwin, London, UK

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Oral medicine

Unusual pigmentation

Sir, a 70-year-old Caucasian female was assessed at our oral medicine department due to concerns from her GDP who noticed unusual pigmentation on the hard palate whilst assessing for the provision of new dentures.

The patient had a previous diagnosis of rheumatoid arthritis with secondary Sjögren's syndrome affecting the eyes and the oral mucosa. Her medication list consisted of hydroxychloroquine, omeprazole, ciclosporin eye drops and saliveze mouth spray. The patient also had a long history of smoking fewer than ten cigarettes a day. We gave smoking cessation advice and she agreed to stop smoking.

Upon examination the mucosa appeared moist and healthy with blue pigmentation affecting the hard palate only (Fig. 1).



Fig. 1 Discolouration of the hard palate seen in the patient taking hydroxychloroquine

Differential diagnoses of drug induced pigmentation and smoker's melanosis were considered, amongst others. To confirm the diagnosis, an incisional biopsy was carried out and the histological report confirmed hemosiderin pigmentation related to hydroxychloroquine use.

Hydroxychloroquine, known as an antimalarial drug, is also indicated for the management of rheumatoid arthritis as well as systemic and discoid lupus erythematosus. Side effects can include gastrointestinal disturbances and skin reactions, including hyperpigmentation of the skin which can be mistaken for bruising.^{1,2}

We informed the patient's rheumatologist of the diagnosis and subsequently their hydroxychloroquine prescription was amended from 200 mg once per day to 200 mg three times a week. The GDP was reassured that the denture provision could safely commence. Drug-induced pigmentation has been long documented in the literature. For example, it can occur due to melanin accumulation which may be exacerbated by sunlight, accumulation of the drug itself which may be able to form a complex with melanin, or by iron deposits in an area of vessel damage. Other drugs known for causing skin pigmentations include NSAIDs, amiodarone, tetracyclines, antipsychotics and heavy metals.³

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