

looked and smelt very strongly of cola and is designed to be a children's handwash. During a global pandemic, where people are encouraged to wash their hands more regularly, the constant reminder of cola

drinks or sweets seems like a perfect sugary nightmare. Can this be regarded as indirect advertising of sugary or acidic unhealthy foods and drinks? Surely, these products should face the same scrutiny and regulation

as consumable sugary foods? Is it ethical to use cola as a flavour in any non-consumable product, let alone regular use products?

S. Chotaliya, Bristol, UK

<https://doi.org/10.1038/s41415-021-3040-x>

CASE REPORTS

Restorative dentistry

Russian red tooth

Sir, a 32-year-old male, from Donetsk (Ukraine) presented for a general check-up at the Manchester University Dental Hospital. Clinical examination revealed an asymptomatic upper right premolar with a characteristic pink/red burgundy discolouration which is frequently described as a symptom of internal resorption, caries, pulp polyp or dental trauma (Fig. 1).¹ Medical history was non-contributory. Dental anamnesis and radiographic examination evidenced that, previously, this tooth was inadequately endodontically treated, with the obturation material being significantly short from the radiological apex. Further investigation indicated that a resorcinol-formaldehyde (RF) hard-setting paste was used to fill the canals, which resulted in pink/red staining of dentine and enamel over the time.²

This method was widely used in Russia, other post-Soviet countries and China for many years to manage irreversible pulpitis and chronic apical periodontitis, and to perform pulpotomies. RF paste is a mixture of an antimicrobial formaldehyde agent and a resorcinol white crystalline powder that arrests dental caries.^{3,4} When RF is introduced into the root canal

system, it not only destroys infection and 'resinifies' residual pulp tissues, but it also obturates the canals as it sets 'brick' hard, preventing further reinfection.^{2,3} The only advantage of the described obturation method, besides its bactericidal effect, is that it permits incomplete pulp tissue removal at the stage of cleaning and shaping. It must be noted that the described method is now rarely used due to the high toxicity of the paste and associated tooth staining.²

This case highlights the importance of accurate diagnosis prior to initiating treatment on teeth with abnormal staining. Teeth treated with RF paste often have red/pink discolouration and can be mistaken for being affected by gross caries, potentially resulting in imprudent tooth tissue removal.⁵ Moreover, in order to avoid misdiagnosing, a careful radiographic assessment must be undertaken. As a hard-setting white obturation paste, RF can significantly obstruct access to the root canal system, making the conventional retreatment unpredictable.^{3,4} Combined utilisation of ultrasonic files, burs, endodontic solvents, rotary Ni-Ti instruments and an operative microscope can be helpful in removing hard-setting cements.¹ In clinical situations where retreatment is difficult, an apicoectomy with retrograde obturation may be considered.⁵

N. Dzyuba, E. Kushnerev,
Manchester, UK



Fig. 1 The asymptomatic upper right premolar with a pink/red burgundy discolouration

References

- Gambrel M, Hartwell G, Moon P, Cardon J. The effect of endodontic solutions on resorcinol-formalin paste in teeth. *J Endod* 2005; **31**: 25-29.
- Schwandt N, Gound T. Resorcinol-Formaldehyde Resin 'Russian Red' Endodontic Therapy. *J Endod* 2003; **29**: 435-437.
- Nezinskienė E, Pečiulienė V, Aleksejūnienė J, Manelienė R, Drukteinis S, Jakaitienė A. Potential to induce dentinal cracks during retreatment procedures of teeth treated with 'Russian red': An ex vivo study. *Medicina* 2017; **53**: 166-172.
- Gound T, Marx D, Schwandt N. Incidence of flare-ups and evaluation of quality after retreatment of resorcinol-formaldehyde resin ('Russian Red Cement') endodontic therapy. *J Endod* 2003; **29**: 624-626.
- Matthews J. Pink teeth resulting from Russian endodontic therapy. *J Am Dent Assoc* 2000; **131**: 1598-1599.

<https://doi.org/10.1038/s41415-021-3041-9>

Dental radiography

The escapee wisdom tooth

Sir, occasionally a radiograph causes even the most experienced practitioner to take a step back (Fig. 1). In this case a 65-year-old male had experienced pain and swelling from the left angle of the mandible for several months prior to presentation. The mesial root appears to be displaced beyond the lower border of the mandible due to the formation of a large dentigerous cyst. The ectopic tooth is planned for removal via an extra-oral access under general anaesthetic in the coming weeks. We felt this was an interesting, eye-brow raising radiograph to share with our colleagues elsewhere.

K. Lodhi, J. Farrier, T. Bean, A. N. Beech,
Gloucester, UK

<https://doi.org/10.1038/s41415-021-3042-8>



Fig. 1 Ectopic tooth shown on radiograph