When One Guideline Just Isn't Enough:

A case study which demonstrates the use of multiple guidelines to manage a failing dentition

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Background

- 69 year old retired female
- Lives with Husband
- Irregular dental attender due to ill health

Presenting Complaint

- Multiple loose teeth and "shrinking gums"

Medical History

- Pyruvate Kinase Deficiency - causing liver cirrhosis
- Hx of MI 2004, Stroke 2000 and Infective Endocarditis and MRONJ (2012 and 2015)
- Heart failure
- Asthma
- Diabetes
- Fibromyalgia
- Osteoporosis
- Hypertension
- Rivaroxaban
- Previous IV infusions of bisphosphonates

Examination

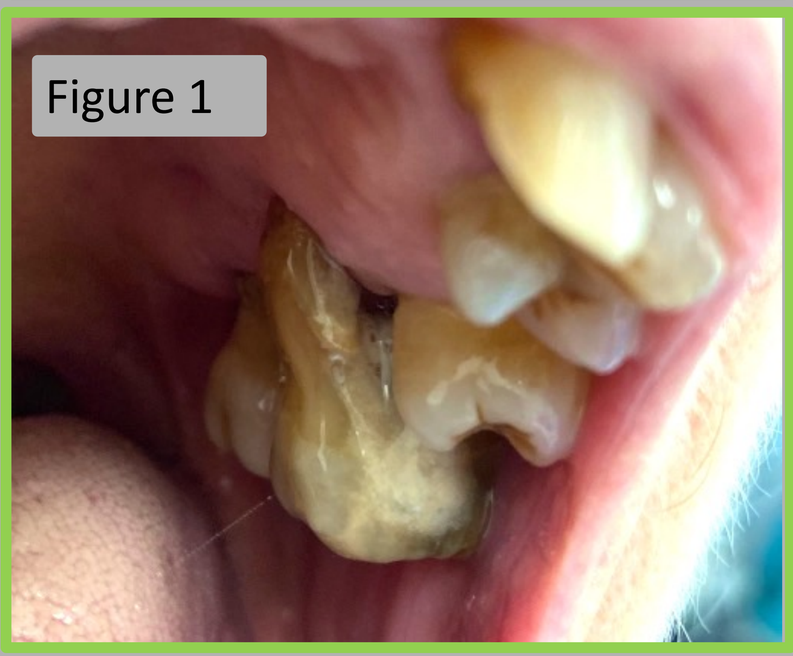
- LR1 and LR2 grade III mobile
- UL6 see fig 1 pockets 10mm+
- No caries
- Oral hygiene is fair
- Upper partial denture has good retention and aesthetics

Investigations

- OPG
- LFT, FBC and Clotting screen

Above normal	Below Normal
ALP	RBC count
Bilirubin	Haemoglobin level and concentration
Mean cell volume	Haematocrit

Figure 1



Risks of dental treatment

Bleeding risk

1. Liver cirrhosis can reduce production of coagulation factors and platelets
2. Rivaroxaban- NOAC

Infection Risk

1. Risk of Infective Endocarditis (IE) following extractions due to previous episode of IE
2. Diabetes increases risks of infections and periodontal disease

MRONJ Risk

1. History of IV bisphosphonate infusions
2. History of previous episodes of MRONJ following dental extractions

Mitigating risks using relevant guidelines

SDCEP Anticoagulants and Antiplatelets Guidelines (1)

- "Consult with patients GMP or liver specialist prior to treatment, ask for latest clotting screen, FBC and LFTs"
- "Limit treatment area and use local measures"
- "Delay or miss dose of NOAC for procedures with high risk of bleeding"

SDCEP Antibiotic Prophylaxis/ NICE Guidelines(2)

- The patient's cardiologist was contacted, and they recommended antibiotic cover for any high risk treatment.
- Also ensured patient was aware of risks and symptoms of IE.

SDCEP MRONJ Guidelines(3)

- According to guidelines patient is higher risk of MRONJ as taken IV infusions of bisphosphonate >5 years and due to previous history.
- Guidance is to avoid extraction if possible or if not proceed as atraumatically as possible and review healing at 8 weeks.

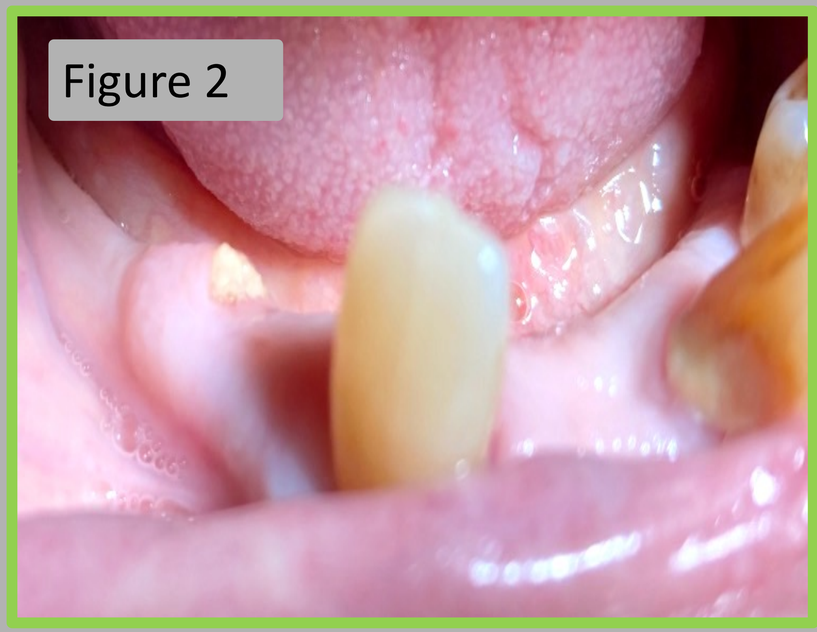
Treatment plan

1) OHI and stabilisation of periodontal disease with the aim to eliminate foci of infection

2) Extraction of teeth with hopeless prognosis with prophylactic antibiotic cover in a staged manner to ensure healing is occurring- see fig 1, allowing natural exfoliation of teeth helped healing post extraction

3) Adding teeth to denture as they are extracted – lower partial denture also made

Figure 2



Outcomes

- Staged approach to becoming edentulous ongoing
- Monitoring of extraction sites continuing
- Still presenting with bony sequestrate see fig 3. (Oct 2021) LL4 was extracted over 1 year previously - ? MRONJ or simply delayed healing due to medical history

Conclusion

With an increasing ageing population who have increasing co-morbidities(4), the likelihood is that multiple clinical guidelines will be needed to risk assess the clinical treatment of this cohort.

References: 1. SDCEP Anticoagulant and Antiplatelet guidelines (2015)
2. SDCEP Antibiotic Prophylaxis 2018 / (NICE) Clinical Guideline 64 *Prophylaxis Against Infective Endocarditis*
3. SDCEP Oral Health Management of Patients at Risk of Medication-related Osteonecrosis of the Jaw (2017)
4. Igor, B (2020) Oral Health Care for the Ageing Population: Challenges and Boundaries in a Changing World,