

# A COVID CONUNDRUM –THE CHALLENGES ENCOUNTERED FOR A RESTORATIVE CASE

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PATIENT BACKGROUND

Demographics: 61M  
Reason for attendance: New patient examination  
Presenting complaints: Intermittent pain **UR3**, 'sharp roots' in gingiva,  
Medical history: Palindromic arthritis  
Social history: Smoker; looking to quit, non-drinker, self employed  
Dental history: Trauma to dentition as a child. Non attender 20+ years. No hx of removable prosthodontic t reatment.  
OH regime: brushing 1xdaily MTB, no interdental cleaning

RISK ASSESSMENT AND DIAGNOSES

- Caries: **High**  
NCTSL: **Moderate**  
Oral Cancer: **High**  
Periodontal Disease: **High**
1. Nicotinic Stomatitis of the posterior hard palate
  2. Caries; **UR6(m)**, **UL1(d)**, **LL4(d)**, **LR3(m)**
  3. Generalised periodontitis, Stage III, Grade C, Currently Unstable, Risk factor=Smoker
  4. UR3 Irreversible Pulpitis
  5. Retained roots: **UR5**, **UR4**, **UR2**, **UL3**, **UL6**
  6. Multiple missing units

EMERGENCY TX, PREVENTION AND STABILISATION

PRE OP (10/10/19)

Frontal views



POST PERIO TX (12/03/21)



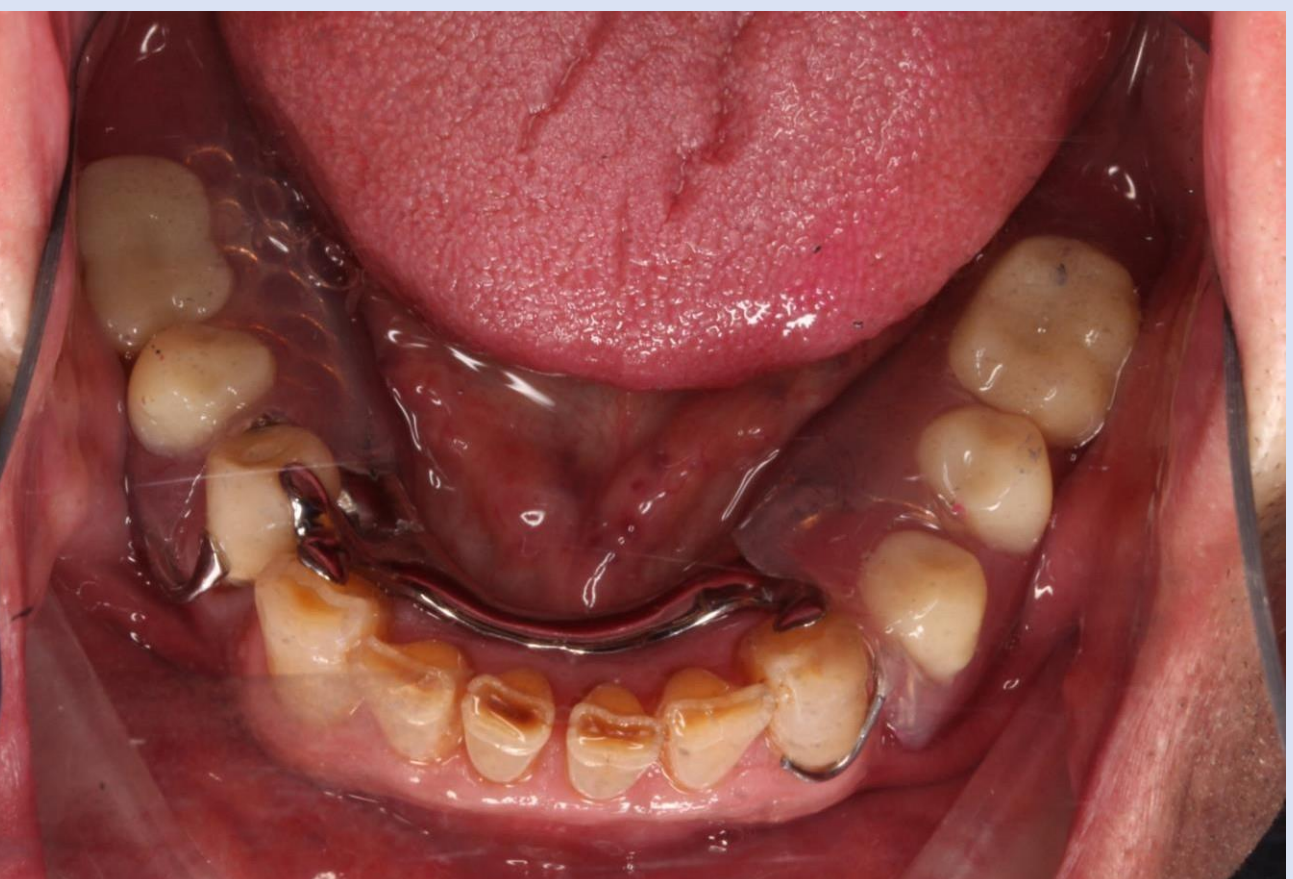
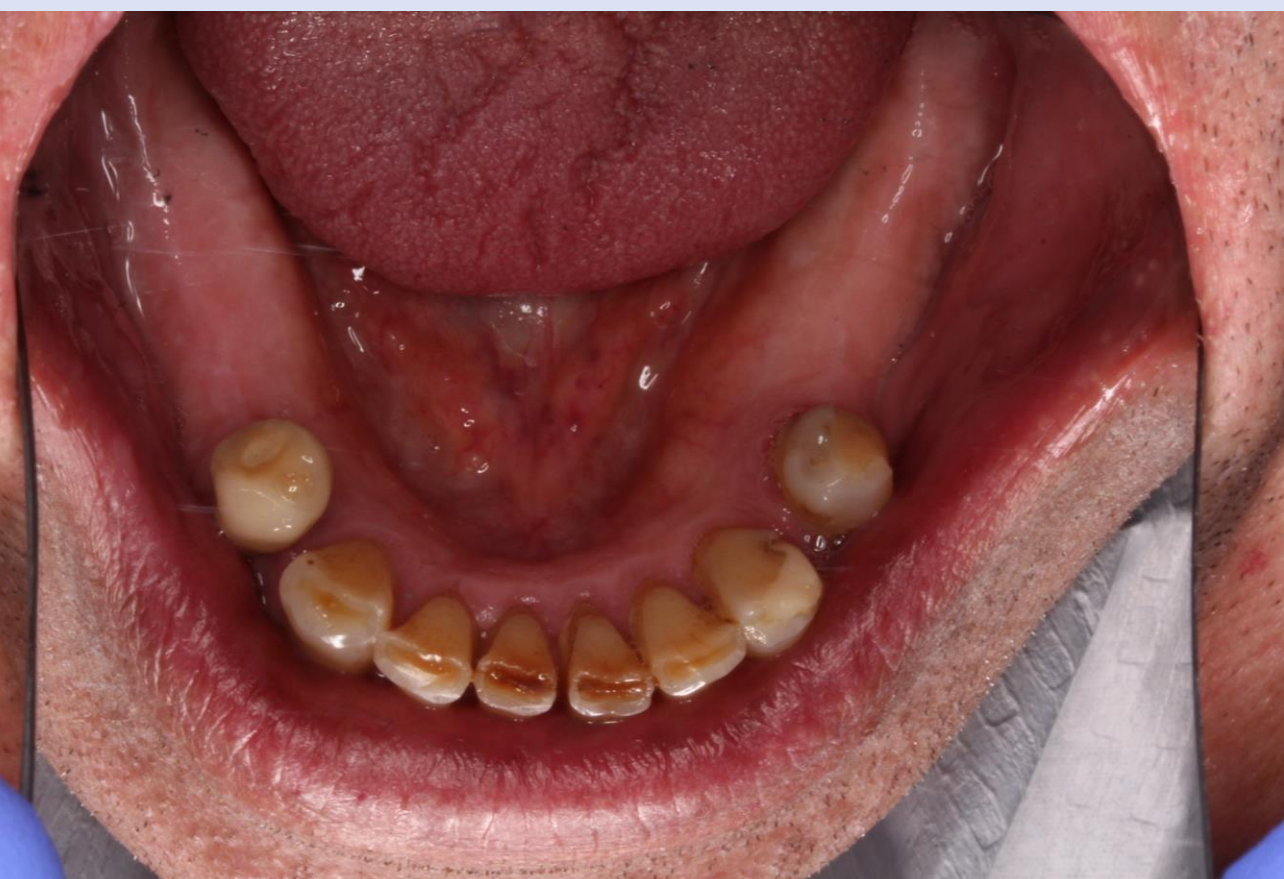
POST P/P provision (15/03/21)



Upper Occlusal views



Lower Occlusal view



SUMMARY OF SIGNIFICANT CLINICAL FINDINGS

E/O : Bilateral tenderness of TMJs - unrestricted mouth opening  
Hard tissues: Moderate plaque and calculus deposits, multiple missing units, Isolated active carious lesions;**UR6**, **UL1**, **LL4** and **LR3**, NCTSL of lower anteriors extending into dentine. Cawood and Howell Class I.  
Soft tissues: generalized inflammation and bleeding on probing. Nicotinic stomatitis of the posterior hard palate

ELECTED TREATMENT PLAN

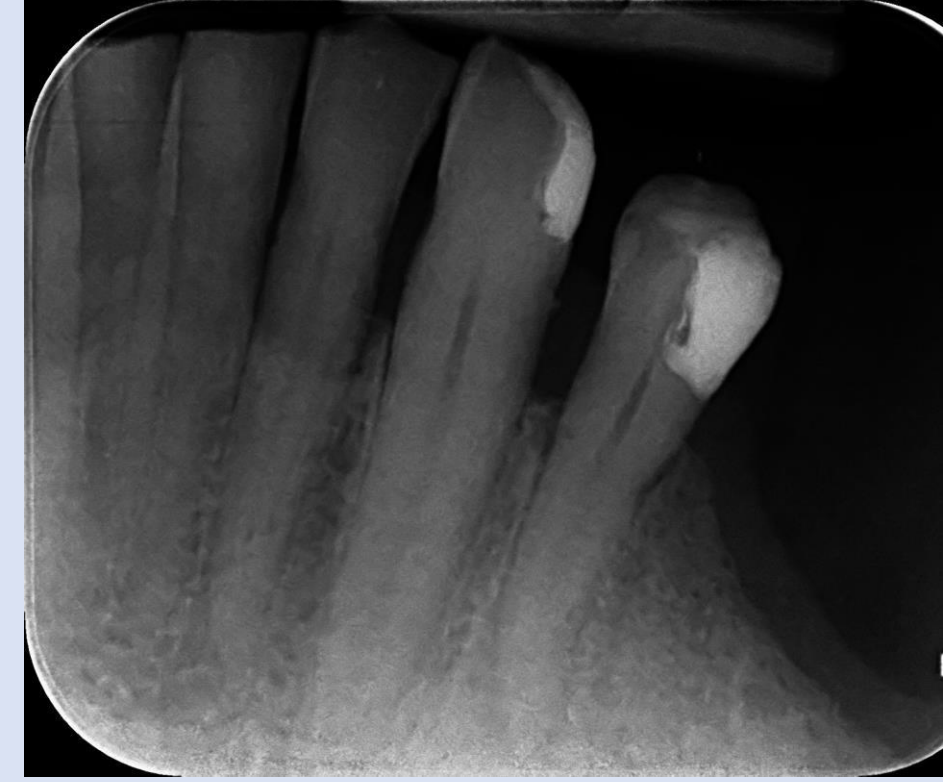
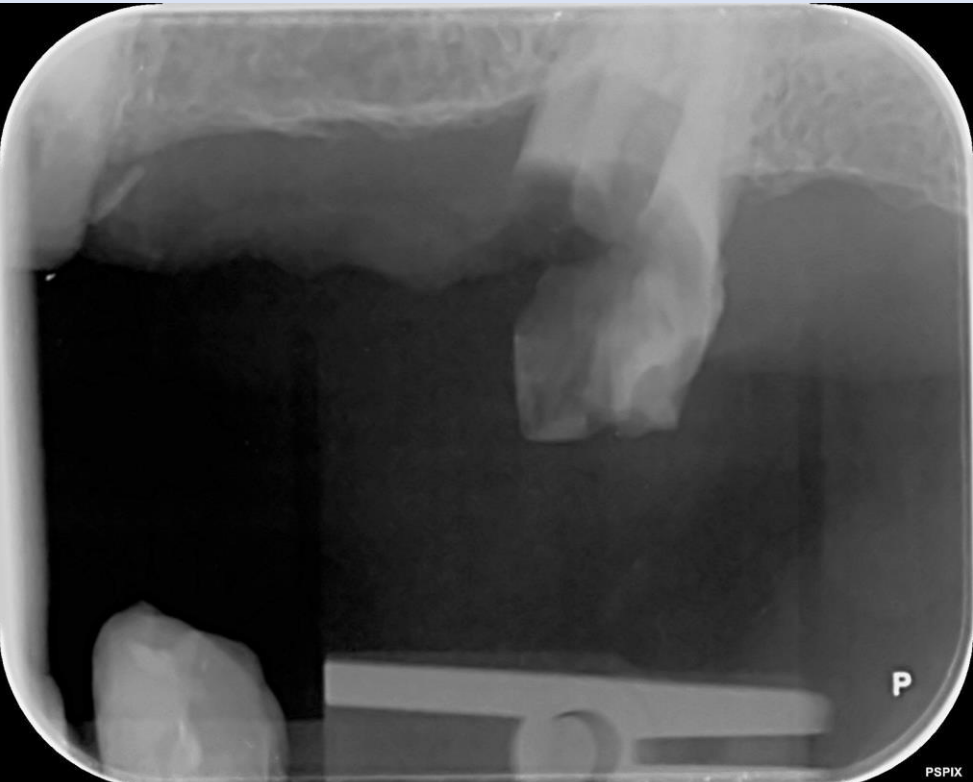
Emergency phase:  
Exirpation of **UR3**  
Extraction of retained roots (**UR5**, **UR4**, **UR2**, **UL3** **UL6**)  
Prevention: Diet analysis & advice, extensive OHI, high fluoride prescription, topical fluoride, smoking cessation advice  
Stabilisation phase: Caries removal and restoration of **UR6(m)**, **UL1(d)**, **LL4(d)**, **LR3(m)** cavities. Initial periodontal therapy.(Reassessment prior to moving onto definitive treatment).  
Definitive treatment:  
Provision of upper acrylic overdenture and lower Co/Cr

Buccal Views pre and post fixed Prosthodontic treatment (15/03/21)



SPECIAL INVESTIGATIONS AND FINDINGS

Periapical radiographs : all remaining maxillary and mandibular  
Sensibility testing: UR3:exaggerated positive response to ethyl chloride, ++TTP.



UR6, UR5(rr), UR4(rr)

UR3, UR2

UR1, UR2

UL6

UL3

LR4, LR3, LR2, LR1

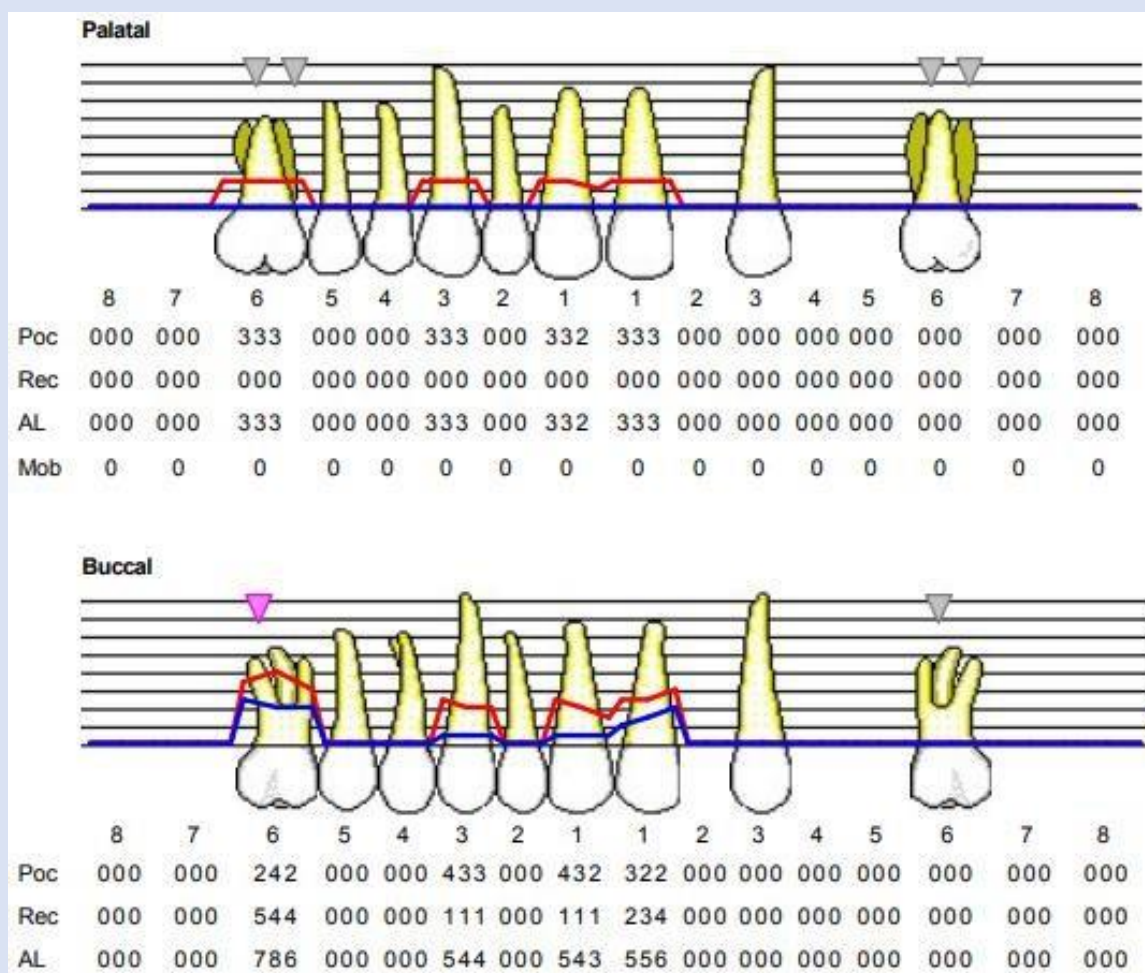
LL1, LL2, LL3, LL4

ENDODONTIC MANAGEMENT



Pre op radiograph  
Initial extirpation of UR3 as part of emergency phase. Canal preparation and obturation completed once stabilisation phase completed. **Impact of Covid-19 Pandemic:**  
UR3 fractured at 1mm supragingival level before fixed prosthesis could be provided. The UR3 was initially providing an occlusal stop. It became difficult to re-create the patient's occlusion. UR3 was smoothed for good cleansability and maintained as an abutment for a P/- overdenture.

MANAGEMENT OF PERIODONTAL DISEASE



Maxillary 6PPC prior to RSD

Blue line = Gingival level, Red line = Bone level

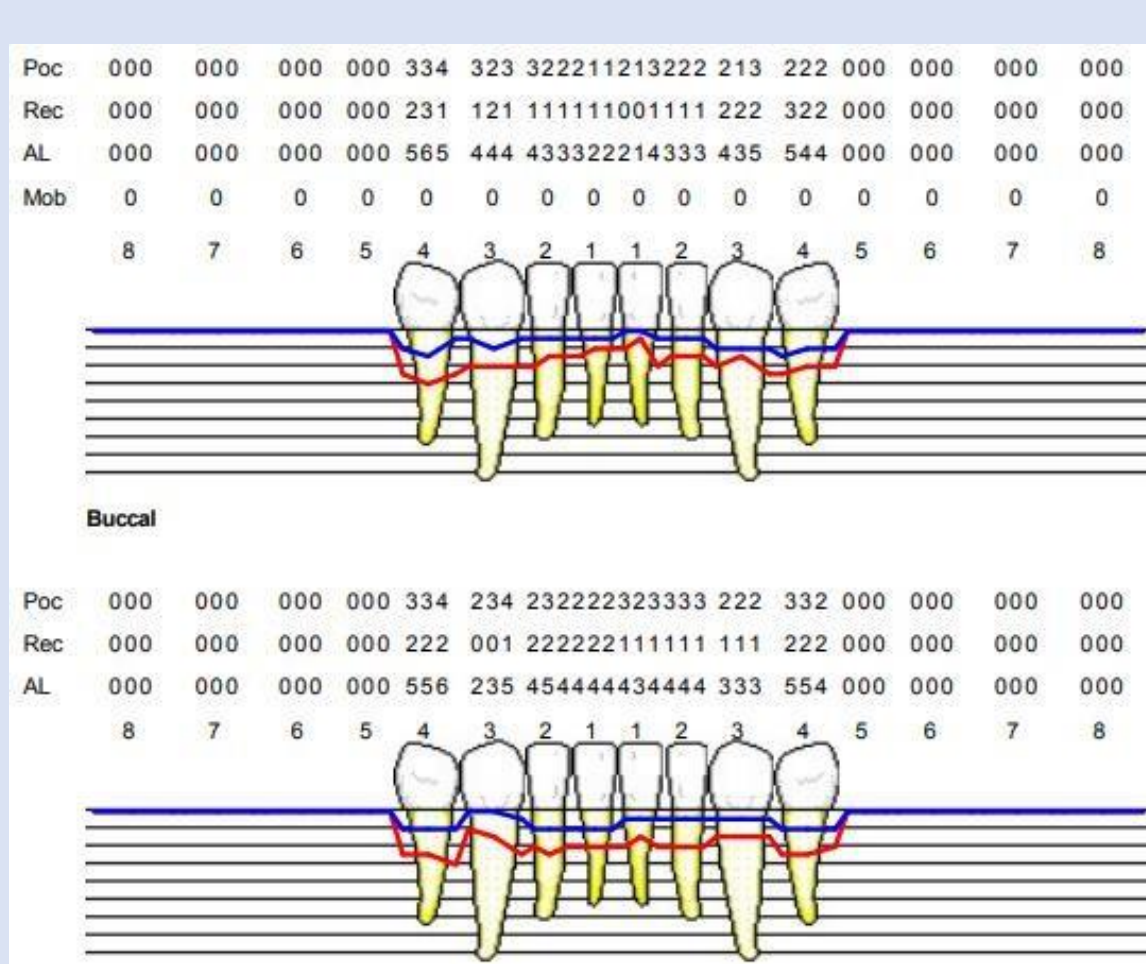
Plaque and bleeding scores

Before treatment: Plaque=61.8%, Bleeding=14.7%

After treatment: Plaque=33.3%, Bleeding=4.2%

**Impact of Covid-19 Pandemic:**

Due to the pandemic, there was an interruption in the patient's periodontal treatment. The patient did well to maintain his OH at home, however there was a delay in continuation of root surface debridement of mandibular quadrants for approximately 9 months. With restrictions placed on University clinics, a repeat 6 PPC was not taken and RSD was completed by clinic tutors.



Mandibular 6PPC prior to RSD

**BPE BEFORE RSD**

**BPE AFTER RSD**

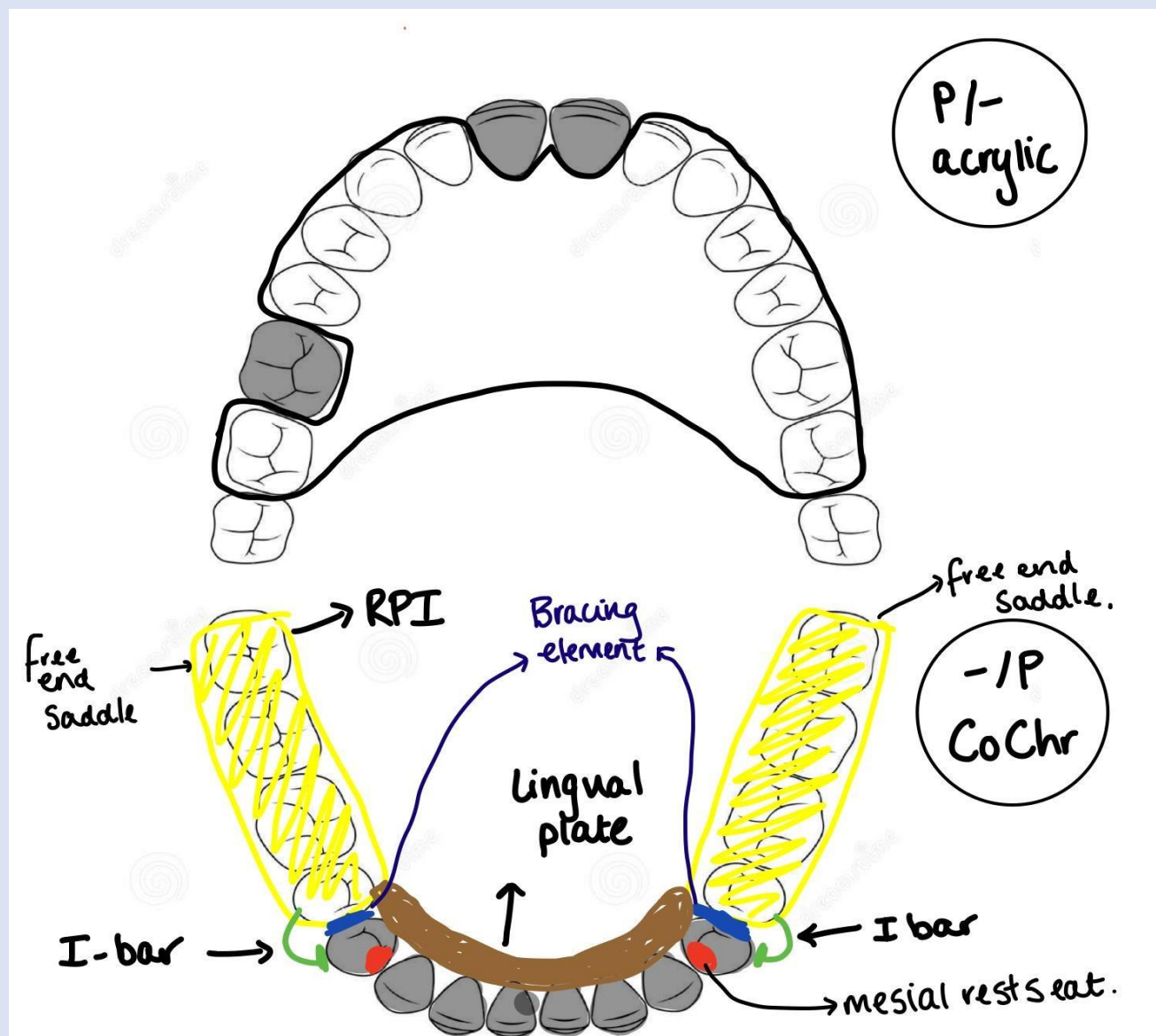
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**2\* 2 X**

**X 3 X**

**X 2 X**

PROSTHODONTIC MANAGEMENT DENTURE DESIGN



**Impact of Covid - 19 Pandemic:**

-/P denture design alteration  
Patient attended EDS due to pain from LL4 requiring immediate extraction. The denture was ready to fit, however, now had to be

adjusted to accommodate for the loss of LL4. Discrepancies in denture design and the denture fitted can therefore be noted. -/P denture design was modified by the following:

- Addition of LL4 tooth with I bar extended buccal to LL3.
- Composite restoration placed buccal of LL3 to create undercut for Ibar to engage
- Lingual plate modified to lingual bar to free up lingual gingiva

REFERENCES

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- 2017 classification of periodontal diseases: [https://www.bsperio.org.uk/publications/downloads/111\\_153050\\_bsp-flowchart-implementing-the-2017-classification.pdf](https://www.bsperio.org.uk/publications/downloads/111_153050_bsp-flowchart-implementing-the-2017-classification.pdf)
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- [https://www.bsperio.org.uk/assets/downloads/BSP\\_Treatment\\_Flow\\_Chart\\_17\\_SCREEN\\_READY\\_vtube\\_link.pdf](https://www.bsperio.org.uk/assets/downloads/BSP_Treatment_Flow_Chart_17_SCREEN_READY_vtube_link.pdf)
- Cawood JJ, Howell RA. A classification of the edentulous jaws. Int J Oral Maxillofac Surg. 1988 Aug;17(4):232-6. doi: 10.1016/s0901-5027(88)80047-x.

**REFLECTION:** The Covid-19 pandemic presented numerous challenges for the management of this case. Length of treatment extended over 2 years and potentially more with the additional provision of; a new UR1 crown, adjustments to the -/P to allow for soft tissue remodeling where the LL4 was extracted and periodontal maintenance. Patient compliance was a key contributor to the outcome of this case. The patient displayed motivation to improve his oral health, and this was vital to allow continued treatment after restrictions were placed on university clinics. Although challenges were met, I believe the treatment outcomes exceeded the patient's expectations, which was the goal. Providing the patient with the ability to begin eating solid foods again and enjoy smiling, allowed for an understanding to be made of the "bigger picture" of recognizing patient concerns and needs and working as a team to allow successful outcomes no matter the circumstance.