

# Case Study #1

75 year old male geriatric patient with high BP, high cholesterol, and type 2 diabetes

AAP: Stage 3, Grade B

# Patient Profile

CC: "I have a gum infection on my upper tooth as per my dentist"

The patient is a 75 year old asian male who regularly visits NYCCT's dental hygiene clinic for cleanings. His last physical examination was in January of 2024 and the doctor reports good health. Patient is being treated for Type 2 diabetes, high blood pressure, and high cholesterol and is taking Losartan 50mg 1x/day, Metoprolol 50mg 1x/day, Rosuvastatin 5mg 1x/day, and Metformin 750mg 1x/day.

His blood pressure was 139/82 P: 61 and 146/86 P: 50 at the revisit. Patient refused to disclose glycemic information. Patient was told before appointment to take medication as prescribed and to have a meal before coming in to prevent a hypoglycemic accident.

Patient is a half a pack a day smoker and does not drink alcohol.

Last seen by dentist in January of 2024 and was given a 2 week supply of tetracycline for reported gum infection. Last cleaning was 4 months prior.

# Patient Profile

The patient seemed disgruntled regarding the clinical procedures that the clinic takes and expressed dissatisfaction with the school's policies. Stress reduction protocols were taken by calmly assuring the patient that his needs were to be met and asking him to stop and breathe slowly for 30 seconds.

The patient expresses that he is willing to incorporate any oral hygiene routines to take care of his teeth at this point of his life and says he uses an electric toothbrush to brush his teeth once a day, uses normal fluoridated toothpaste, and flosses with string floss after every meal.

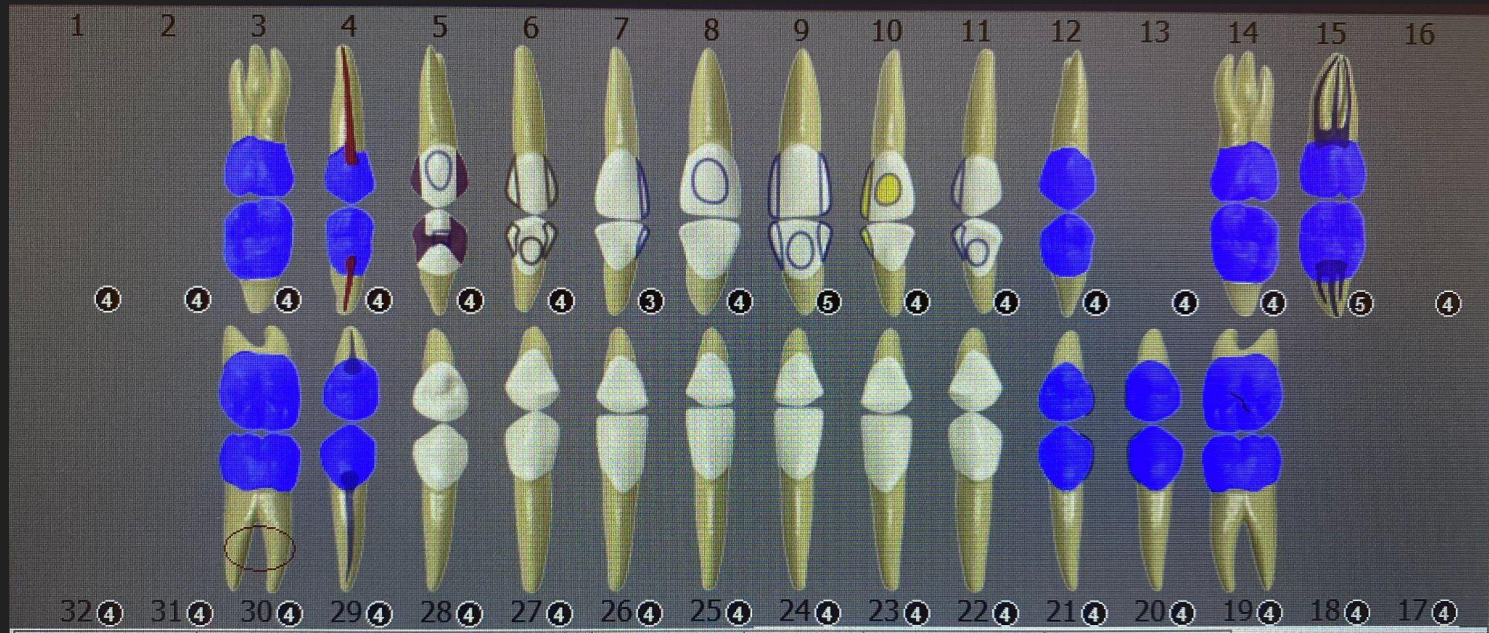
# EO/IO Examination

Extraorally this patient presented with unilateral clicking of the TMJ joint and generalized ephelides or freckles.

Intraorally this patient presented with dry parotid glands, bilateral mandibular tori, coated fissured tongue, exostosis near #6, 11, and mandibular anterior teeth.

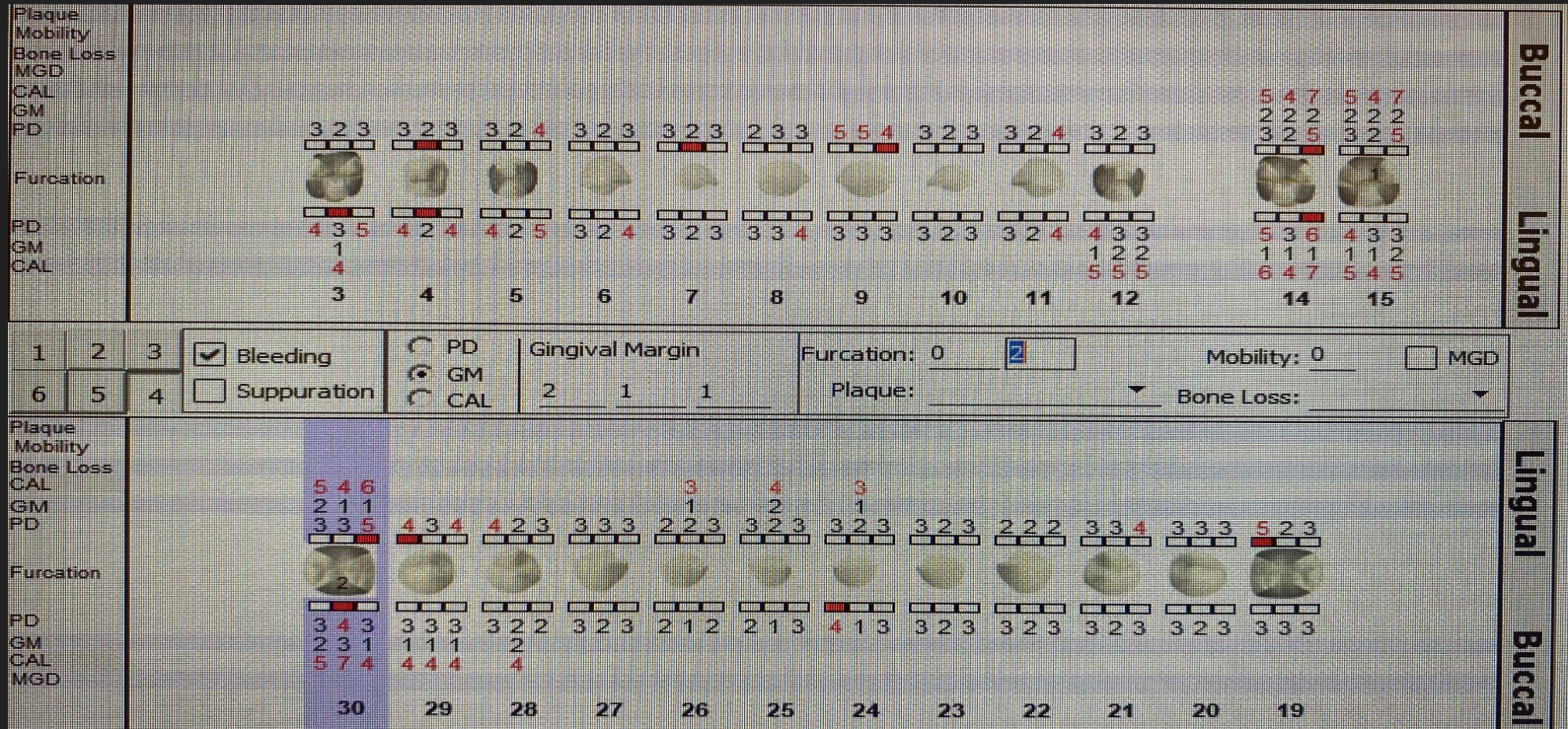
Moderate attrition generalized among remaining teeth which is reasonable as he had bilaterally a class 1 occlusion with an edge-to-edge bite.

Severe generalized coffee and tobacco staining was also noted.



-Patient has 10 PFM crowns with 3 that are endodontically treated, MOD class 2 amalgam restoration on #5 as well as composite restorations on the maxillary anterior teeth.

-#10 showed signs of decay clinically through softening of the enamel.



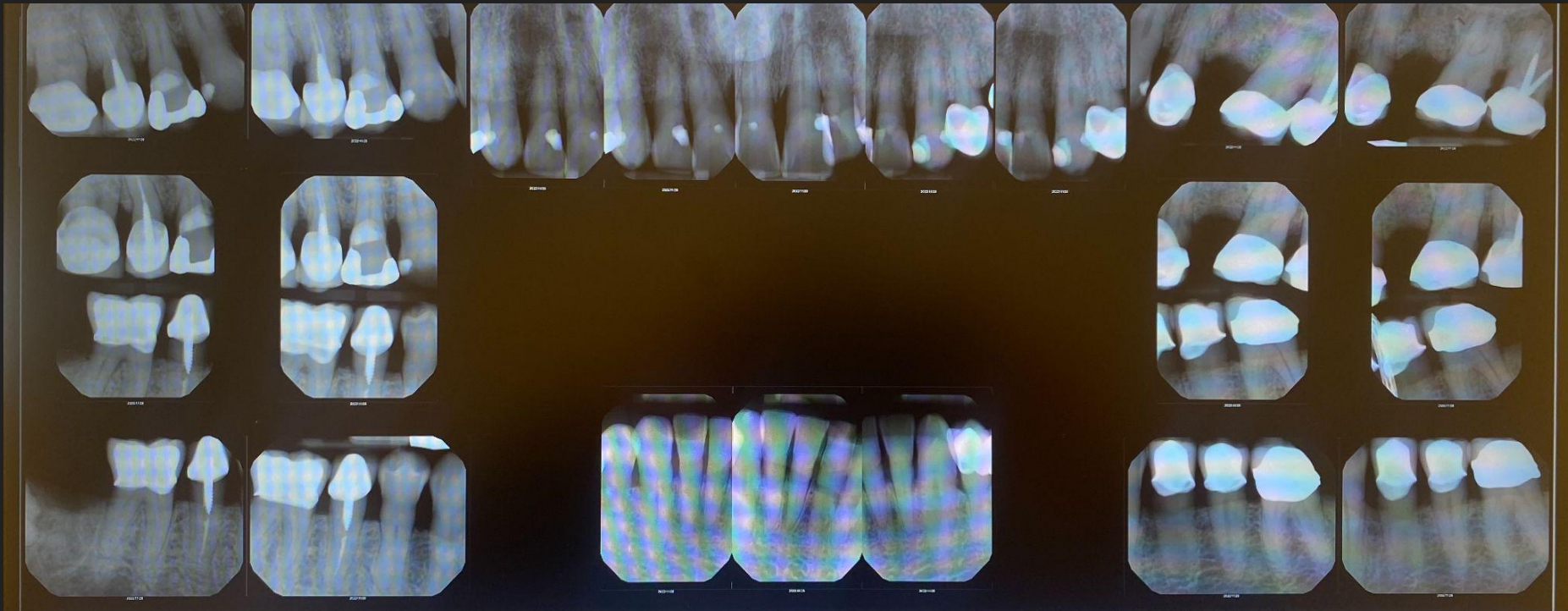
Generalized 2-3 mm pockets with local 4-6mm pockets in posterior teeth and central incisors. Generalized recession found on >30% of teeth. Class 2 furcation involvement on #3-D and #30-B. Localized bleeding and suppuration after palpating apically of #30-B oozing out of the marginal gingiva.

# Soft Tissue Evaluation

Gingival Assessment: Pale pink with melanin pigmentation, thick flat gingival biotype that fits teeth snug with signs of recession, papilla is blunted type 2 embrasures, margins are flat on teeth, soft consistency, and fibrotic texture.

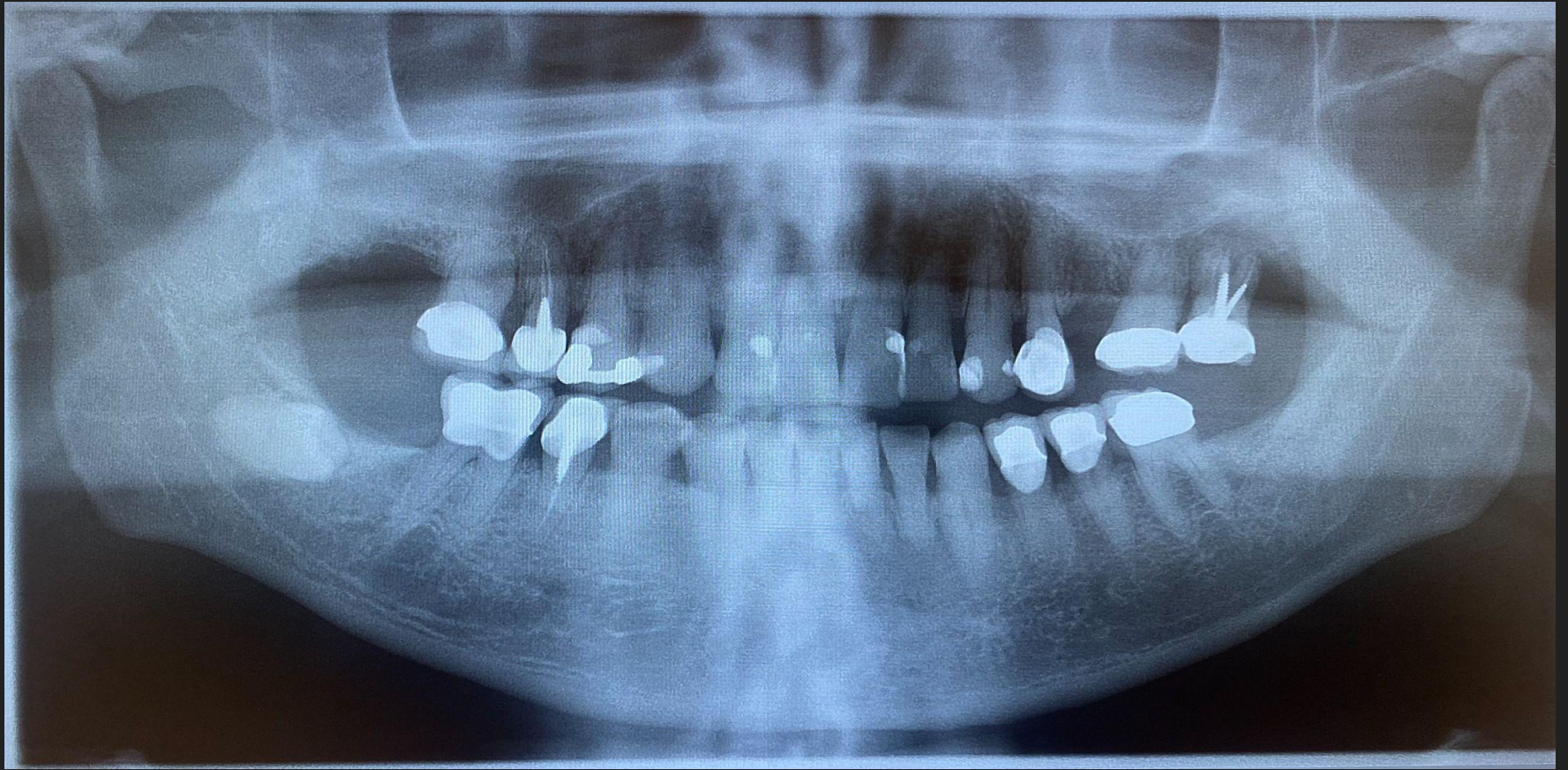
Patient is a smoker which is consistent with the generalized hyperkeratinization of the hard palate and attached gingiva. Also with the paleness of mucosa as smoking can reduce the vascularity of tissues.

Important to note, suppuration was found after palpating apically of #30-B oozing out of the marginal gingiva.



Utilized an FMS taken 1 year prior. Generalized 33% horizontal bone loss, localized calculus on #23-26, and no suspicious carious lesions. Images were taken at 7ma/70kv.





Utilized a panorex image taken 1 and a half years prior. Patient did not place tongue on the roof of the mouth exposing the palatoglossal airspace but other landmarks are clear.

# Dental Hygiene Diagnosis

## Considerations:

- Patient has multiple sites of probing depths >5mm
- Class 2 furcation involvement in multiple teeth
- Has lost >4 teeth but due to unknown causes
- >33% radiographic bone loss
- Patient's systemic condition, Type 2 Diabetes (Glycemic information unknown).
- Patient smoking 10 cigarettes a day

The diagnosis for this patient's periodontal status according to AAP was Stage 3, Grade B. The rate at which this patient's periodontitis is progressing could be graded a C due to his smoking habits and possible glycemic index but with his % bone loss / age, destruction not exceeding expectation given biofilm deposits, and clinical attachment loss being <2mm over the past 3 years grade B was chosen.

# Caries Management by Risk Assessment - CAMBRA

After reviewing risk factors the patient was classified as High Risk for Caries

Contributing factors:

- Sugary snacking frequently in between meal times
- Severe dry mouth (Xerostomia)

Patient Instructions:

- Brush 2x/day using the modified stillman's method
- Continue to use string floss and incorporate interdental brushes for open embrasure spaces
- Rinse with non-alcoholic anti-septic mouth rinse such as Listerine or Crest at night before bed.
- Consider using Biotene or Salivea during the day after taking medication to maintain salivary flow

# Dental Hygiene Treatment Plan

## Visit #1:

- Complete assessments
- Disclose PI and OHI on interdental brushes
- Scale Q1/4

## Visit #2:

- Disclose PI and OHI on Biotene
- Scale Q2/3
- Selective engine polishing with pumice and 3% hydrogen peroxide
- Apply 5% NaFl varnish

# Recare

Since the patient is a Stage 3, Grade B periodontitis patient and at high risk for caries he was told it would be best to come in every 3-4 months for maintenance.

It is crucial that these patients are seen at these intervals due to the progressive nature that periodontitis poses. Chronic periodontitis progresses at a slow rate with short bursts of disease progression and is consistent with the amount of oral biofilm and subgingival calculus found in the mouth.

The patients type 2 diabetes diagnosis is also a high alert risk factor for rapid progressing periodontitis. Gum disease and diabetes is a bidirectional relationship where high blood sugar increases risk of gum disease and gum disease makes it difficult to lower blood sugar. This is why it is important especially for diabetic patients to understand and feel comfortable coming in 3-4 times a year at least for perio maintenance.