



NEW YORK CITY COLLEGE OF
TECHNOLOGY
DEPARTMENT OF DENTAL HYGIENE
CASE PRESENTATION

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Patient Profile

Mr. F is a 32-year-old male patient.

Patient works as a bartender in a bar in Brooklyn, his last dental cleaning was over 10 years-ago and patient does not remember what was done at that time,

The patient states that he uses electric toothbrush once a day (morning time), Colgate whitening toothpaste, no use of mouthwash nor tongue cleaner, patient smokes Marijuana 1xDay and drinks around 3-4 beers 3-4 times a week. He feels mild sensitivity to cold and he often has dry mouth.

Chief Complaint

- Patient states “I want a cleaning”.
- Mr. F’s last dental cleaning was a over 10 years ago ago and he is willing to have a healthy mouth.
- Mr. F reports some sensitivity when he drinks some cold and hot drinks. The patient says he gets very late from work and he is too tired to brush his teeth before going to bed.
- Mr. F uses recreational Marihuana 1xDay for stress relief.

Health History Overview

Blood Pressure: 145/84, Pulse: 84, ASA: III.

Medical Conditions:

- High blood pressure
- No allergies reported.

Current Medications:

- Multivitamins for overall health

High blood pressure stage 2

Hypertension Stage 2 is when blood pressure consistently ranges at 140/90 mm Hg or higher. At this stage of high blood pressure, doctors are likely to prescribe a combination of blood pressure medications and lifestyle changes.

BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)	and/or	DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120 – 129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130 – 139	or	80 – 89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
<u>HYPERTENSIVE CRISIS</u> (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

Not controlled high blood pressure

Last time patient visited his primary doctor was over six years ago, this patient does not report any medical condition but might be encountering blood pressure problems, patient reports no symptoms, however, high blood pressure often has no symptoms. Over time, if untreated, it can cause health conditions, such as heart disease and stroke.

Comprehensive Assessments

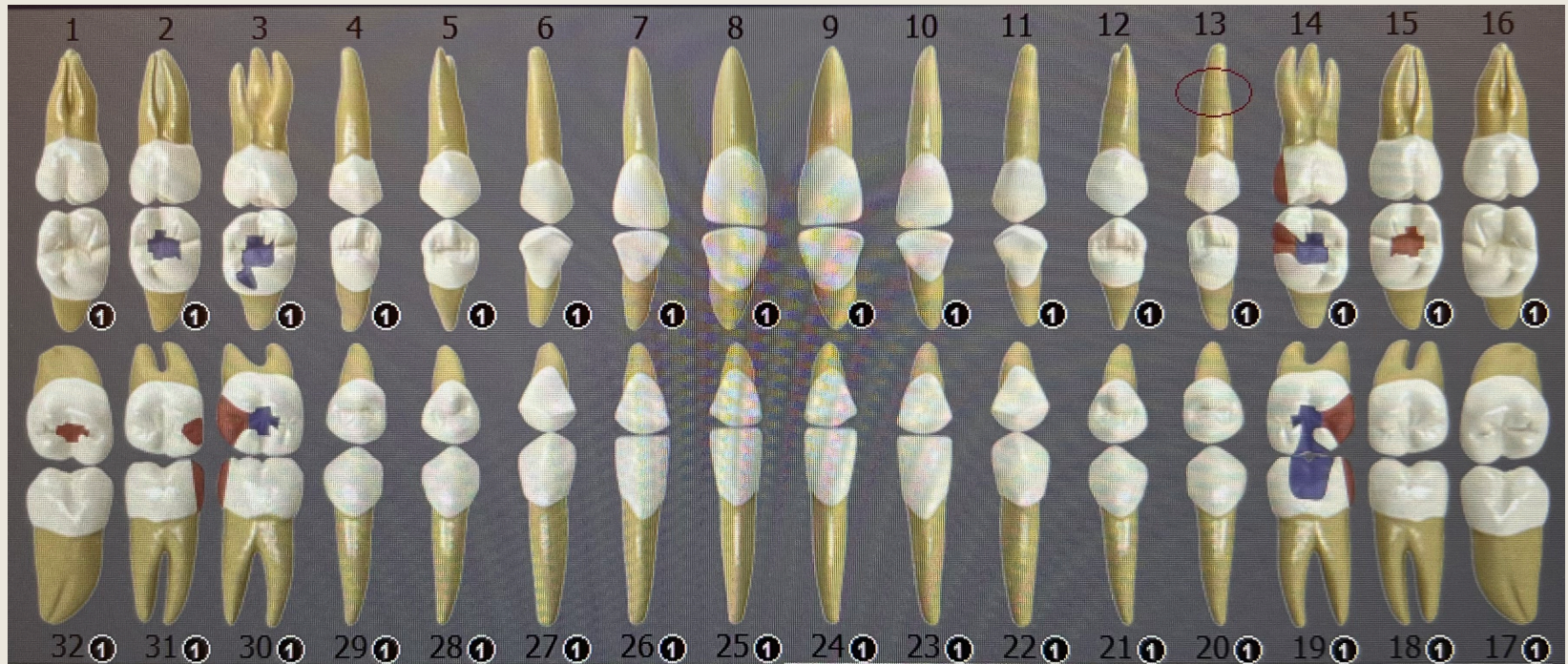
Summary of Clinical Findings

Extraoral/Intraoral Findings: TMJ clicking when opening and excursion movements, asymptomatic. Mr. F has a locked jaw history when opening. The patient presents with dry lips, bilateral linea alba, and coated tongue.

Occlusion: Molar relation class I bilateral. Overjet: 2mm and less than 5% overbite. Generalized attrition noted.

Calculus: Heavy supragingival and subgingival calculus Generalized. Moderate stains on lingual surfaces of upper and lower anterior teeth

Dental Charting



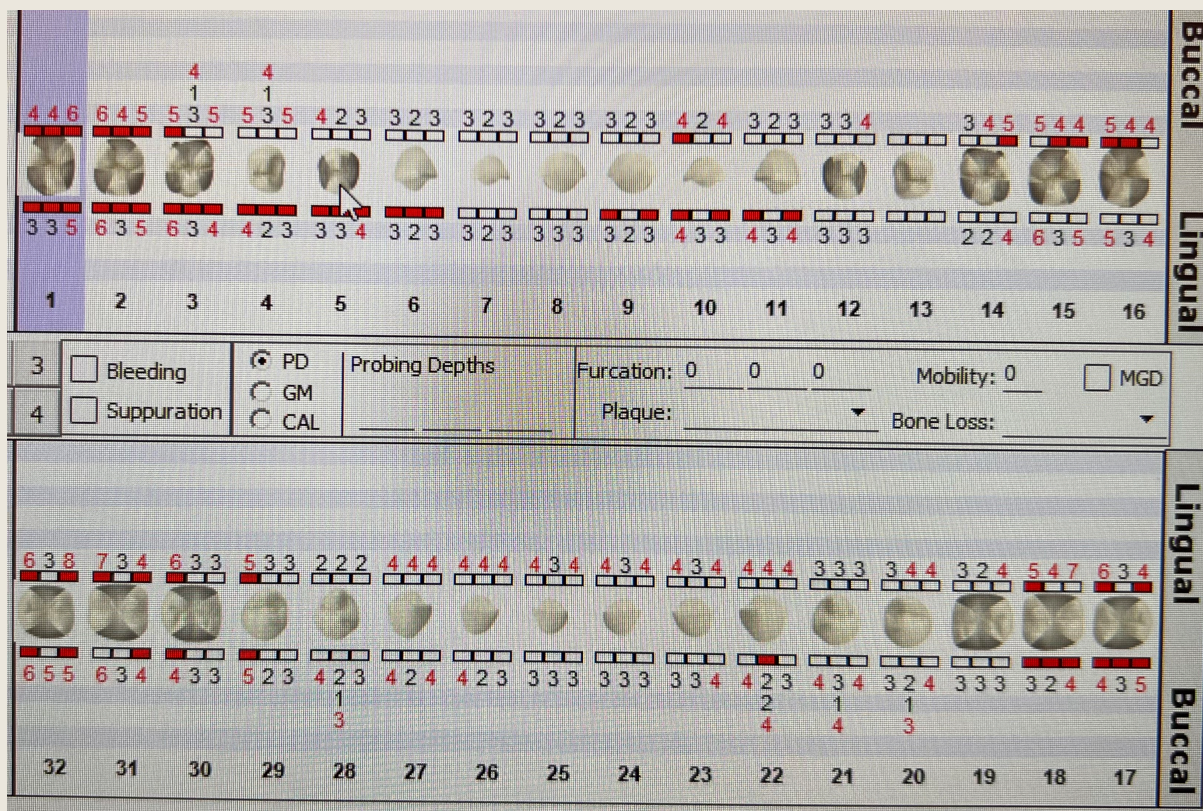
- Amalgam restorations on tooth # 2-O, #30-L, #14-O, # 19-OB, #30-O.
- Caries lesions on #14-M, #15-O, #19-D, #30-D, #31-M and #32-O.
- Retained root tip of tooth #13

Gingival Description and Periodontal Status

Gingival Description: Gingiva looks enlarged, red in color generalized, the consistency is puffy and not resilient with papillae that fills interproximal spaces, localized rolled gingiva on posterior teeth. Generalized gingival margin inflammation.

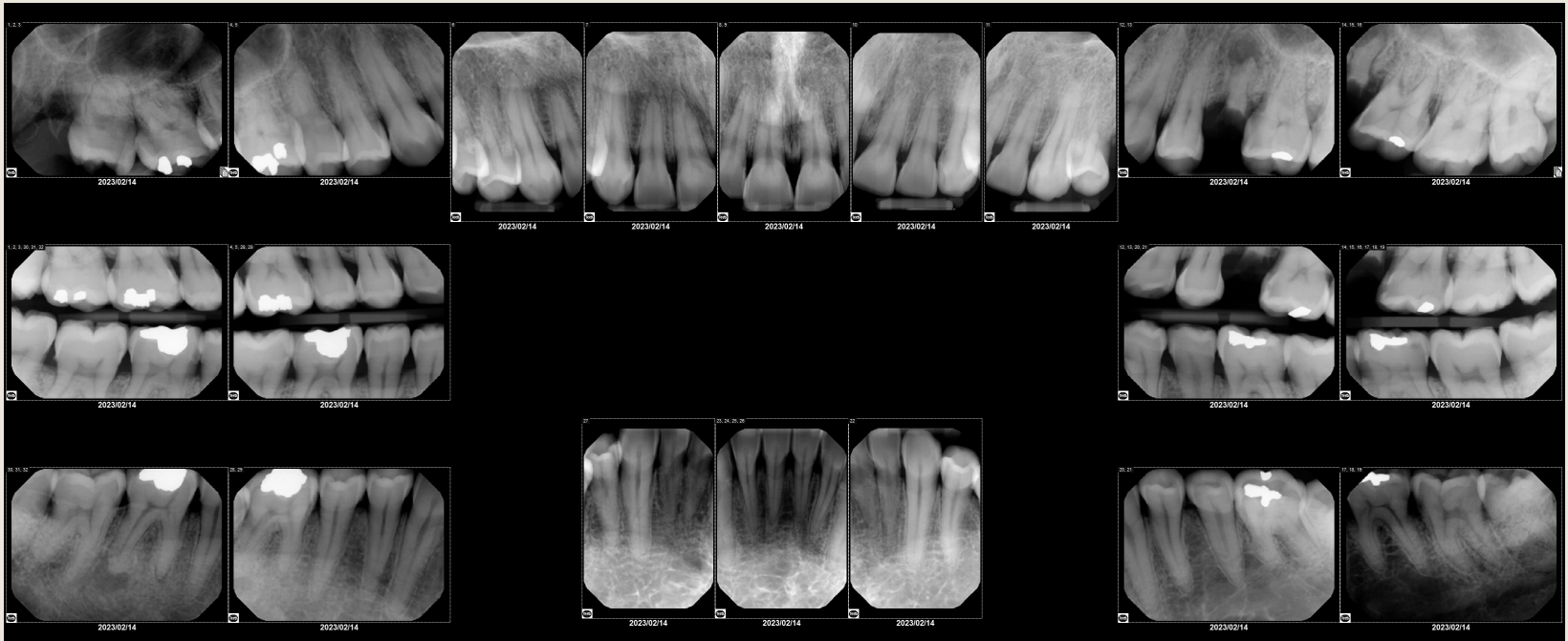
Periodontal Status: Periodontitis Stage II Grade B with radiographic evidence.

Periodontal Charting



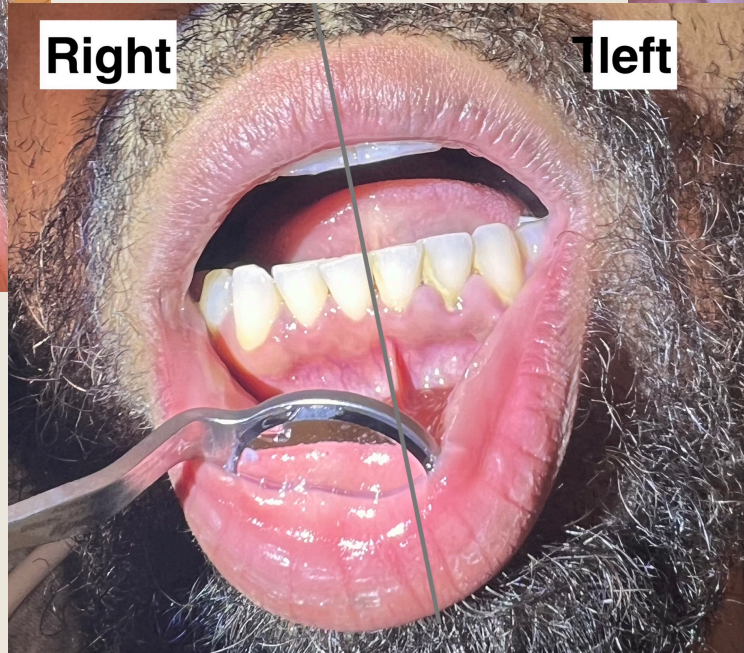
- Generalized moderate bleeding on probing.
- Probing depth ranges between 3-8mm on posterior teeth and 3-4mm on anterior teeth
- Gingival recession on several posterior teeth. Ranging between 1 and 2mm. recession, mobility class III present on supernumerary tooth between #1 and #2.

Radiographs



- UP to 15% radiographic bone loss generalized with up to 33% localized bone loss in tooth #25.
- Supernumerary tooth localized buccal between #1 and #2 and another supernumerary tooth distal of #16. #13 retained root tip.
- Interproximal caries: #14-M, #19-D #20-D and #31-M.
- PAP #13 and #30.
- Evidence of past restorations
- Subgingival generalized calculus deposits
- All findings were discussed with MR. F

Intraoral pictures



Dental Hygiene Diagnosis

Periodontal Diagnosis:

Periodontitis Stage II Grade B based on multiple factors:

- Generalized moderate bleeding on probing and exploring.
- **Up to 15% radiographic bone loss generalized with up to 33% localized bone loss in tooth #25.**
- Generalized inflammation on all quadrants. Probing depth on posterior teeth readings of 3-8mm
- Generalized heavy subgingival calculus on all quadrants. heavy supragingival calculus generalized.

Dental Hygiene Diagnosis

Risk for Caries:

Patient is at high risk because the patient presents with active caries.

Patient often feels dry mouth, the cause of this may be because of the recreational drug use of marijuana.

Dental Hygiene Care Plan

Visit One:

- Educate the patient about the consequences of Marijuana smoking, and advise that it may be the reason of the dry mouth.
- PI/OHI: Spool flossing method introduced and sensitivity toothpaste recommended, explain the benefits and the importance of brushing at night.
- Exposure of digital radiographs (FMS) and findings discussed with the patient. Radiographs were given on a flash drive to the patient
- Debridement of quadrant 4 with ultrasonic
- Referral to a Dentist for caries lesions and possible RCT, for a custom-fitted mouthguard, for evaluation of supernumerary teeth extraction and extraction of the retained root tip of #13.
- Referral to a physician to get a complete check-up and evaluate the blood pressure.

Dental Hygiene Care Plan

Visit Two:

- PI/OHI: Mouthwash recommended and benefits of it were explained.
- Evaluate Q4 previously scaled.
- Scale residual calculus on Q4, and scaled quadrant 1 using ultrasonic and hand scalers, supernumerary tooth between #1 and #2 was not scaled because of the mobility. Oraqix (2.5% lidocaine and 2.5% prilocaine) was used for pain management and the patient was comfortable during the procedure.

Visit Three:

- Water floss introduced
- Evaluate quadrants previously scaled
- Scale quadrants 2 and 3 with ultrasonic and hand scalers.
- Oraqix(2.5% lidocaine and 2.5% prilocaine) used for pain management.
- 5% NaF Varnish was applied and post-op instructions given

Implementation

Visit One(Initial visit):

- Patient presents to the dental clinic with the blood pressure: 145/84 and pulse: 89. this corresponds to high blood pressure stage 2, after 5 min the BP was taken again giving the following readings: 134/84 corresponding to HBP stage 1.
- After exposure of FMS and review all the findings with the professor, those findings were discussed with the patient and explained the consequences of not going to regular dental visits.
- Explained that high blood pressure is asymptomatic and he needs to see a doctor to get the blood pressure controlled.
- Discussed diet with the patient and explain the consequences of a non-healthy diet.
- Spool-flossing method was introduced and reiterated the importance of flossing at least once a day, upon demonstration patient performed well.
- Debridement of the Q4 quadrant with ultrasonic. No anesthetics were needed for this visit.
- Proper referrals were given to see a dentist and a physician.

Implementation

Visit Two (revisit):

- Pt. presents to the appointment with blood pressure of 139/85 a pulse: 54. corresponding to high blood pressure stage 1. He reported that there were no changes in medical history, and no recent hospitalizations/surgeries. Intraoral: WNL.
- The patient reports he is being compliant with the spool-flossing method previously introduced, however, he has not been to the dentist nor the physician for the referrals given.
- Gingiva on Q4 previously scaled only with ultrasonic have red marginal gingiva with moderate inflammation and embrasure type I on anterior teeth, gingiva looks less spongy and more firmly attached to the teeth. Moderate bleeding upon exploring. Supragingival and subgingival residual calculus generalized.
- Re-evaluated, mouthwash use recommended, and explained the benefits of it. Scaled residual calculus found during re-evaluation and scaled Q4 and Q1 with Cavitron and hand instruments. Oraqix (2.5% lidocaine and 2.5% prilocaine) was used for pain management and patient was comfortable durin the procedure. Warm salted water recommended for gum soreness.

Implementation

Visit Three (revisit):

- Pt. presents to his dental appointment with the blood pressure: 149/94 and pulse:60. The blood pressure corresponds to high blood pressure stage II. I reiterated the importance of going to get the blood pressure checked. He reported no changes in medical history, and no recent hospitalization/surgeries. Mr. F mentioned he is using Listerine with alcohol once a day. IO: WNL.
- Gingiva on quadrants previously scaled looks pink and firmly attached to the teeth. Consistency is firm and resilient and fits snugly around teeth. No bleeding upon exploring and no residual calculus was found. Mild soft debris found on lingual of posterior teeth.
- Water flosser was introduced on a typodont with the water flosser demo available in the clinic, explaining the proper use and the benefits of it.
- Debridement of residual calculus and proceeded to debride the Q2 and Q3 with hand instruments and ultrasonics. Oraqix(2.5mg lidocaine/2.5mg prilocaine) was administered for pain management.
- After the quadrant was checked for residual calculus, 5% NaF Varnish was applied.

Challenges during treatment

Treating a patient with high blood pressure, recreational marijuana use, and periodontitis with heavy calculus deposits can be a challenging task for any healthcare professional. High blood pressure and recreational marijuana use can potentially affect the patient's response to medications and can be the reason for xerostomia, causing caries and more plaque accumulation. In addition, periodontitis with heavy calculus deposits may require extensive treatment, which can be uncomfortable for the patient and require multiple visits. It is important to assess the patient's medical history thoroughly and communicate with their primary care physician to ensure safe and effective treatment. Proper pain management and anxiety control measures should be taken to ensure patient comfort throughout the treatment process. Frequent follow-up appointments and consistent oral hygiene habits can also play a crucial role in the success of the treatment.

Evaluation of Care- Outcome of Care-Prognosis

- The prognosis for a patient with high blood pressure, marijuana use, and periodontitis with heavy calculus deposits can vary depending on various factors such as the severity of the condition, the effectiveness of treatment, and the patient's overall health. However, if the patient receives appropriate and timely care, the prognosis can be positive.
- The outcome of care for a patient with these conditions can be evaluated based on several factors. One of the most important factors is the control of high blood pressure. If the patient's blood pressure is consistently managed and brought to a safe range through lifestyle modifications and medication, it can greatly reduce the risk of cardiovascular complications.
- Another factor to evaluate is the control of marijuana use. If the patient is able to quit or reduce their recreational marijuana consumption, it can reduce the risk of complications during dental procedures and improve their overall health.
- The treatment of periodontitis with heavy calculus deposits requires a combination of professional dental cleanings and good oral hygiene habits at home. Regular dental checkups and follow-up appointments can help monitor the condition and ensure that the patient's oral health is improving.
- Overall, with proper care and management, a patient with high blood pressure, marijuana use, and periodontitis with heavy calculus deposits can experience improved oral health and reduce their risk of complications associated with these conditions.

Continued Care Recommendations

The re-care recommendation interval given to the patient is three months.

A 3-month re-care was recommended to the patient due to the radiographic evidence of bone loss and the generalized subgingival calculus. Regular dental cleanings, along with good oral hygiene practices at home, are key to maintaining good oral health. By having regular cleanings, patients can ensure that their teeth and gums stay healthy, reducing the risk of tooth loss, gum disease, and other dental problems.

Final Reflection

- As a healthcare professional, providing care for a patient with multiple conditions such as high blood pressure, marijuana use, periodontitis with heavy calculus deposits, and dry mouth can be challenging. However, it is important to approach each patient with compassion, empathy, and understanding to provide the best possible care.
- The patient's high blood pressure and marijuana use were also addressed, and we worked together to come up with a plan to manage their blood pressure and reduce their recreational marijuana consumption. We also emphasized the importance of regular dental check-ups and proper oral hygiene habits to manage their periodontitis and heavy calculus deposits.
- Overall, it was a rewarding experience to provide care for this patient and to see their positive response to the treatment. As healthcare professionals, it is our duty to provide comprehensive care and support to patients with complex medical histories to help them achieve optimal health outcomes.