

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

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Patient Profile

Miss. M is a 38-year-old Hispanic female.

The patient's status is single, self-employed, and recently moved to the city with her son and daughter. She does have access to dental care.

Her last dental check-up and dental hygiene visit was in August 2018 in her native country. A dental prophylaxis was fulfilled and no films were exposed at the time.

The patient states that she uses a manual soft toothbrush twice a day with Colgate whitening toothpaste. She does not floss, she does not use mouthwash, nor tongue cleaner.

Chief Complaint

- Patient states “I bleed when I brush and my teeth are sensitive”.
- Miss. M bleeds from her gums every time she brushes her teeth.
- Miss. M states that she feels a lot of sensitivity in her front teeth and bleeds her gums when she brushes, also she says she has been through a lot in the last couple of months, and she has been very stressed out. She would like to have a deep cleaning in hopes that the bleeding would minimize and get some help with the sensitivity in her front teeth.
- Miss. M mentioned she had braces when she was young but she is not compliant with the retainer, however, she is happy with the appearance of her teeth.
- Miss. M reports that she has lately found herself grinding her teeth.

Health History Overview

Blood Pressure: 124/79, Pulse: 89, ASA: II.

Medical Conditions:

- Asthma
- No allergies reported.

Current Medications:

- Vitamin C, D, K and magnesium for overall health.
- Ventolin HFA (Albuterol inhaler)

Asthma

According to CDC Asthma is a disease that affects your lungs. It causes repeated episodes of wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. Asthma can be controlled by taking medicine and avoiding the triggers that can cause an attack. You must also remove the triggers in your environment that can make your asthma worse.

Ventolin HFA (Albuterol)

Albuterol is used to prevent and treat difficulty breathing, wheezing, shortness of breath, coughing, and chest tightness caused by lung diseases such as asthma and chronic obstructive pulmonary disease (COPD; a group of diseases that affect the lungs and airways). Albuterol inhalation aerosol and powder for oral inhalation is also used to prevent breathing difficulties during exercise. Albuterol inhalation aerosol is used in adults and children 4 years of age and older. Albuterol is in a class of medications called bronchodilators. It works by relaxing and opening air passages to the lungs to make breathing easier.

Comprehensive Assessments

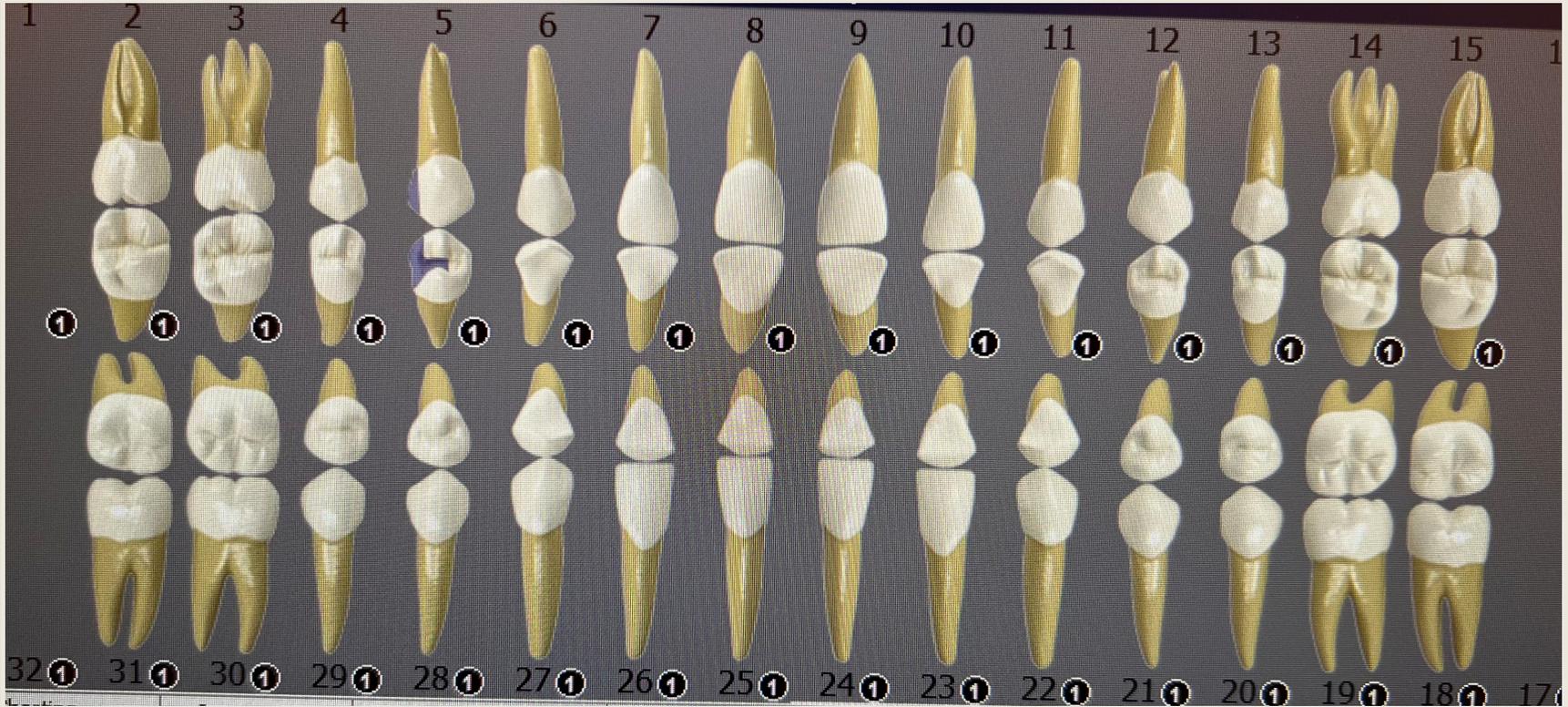
Summary of Clinical Findings

Extraoral/Intraoral Findings: TMJ deviation on the right side and clicking when opening and excursion movements, patient reports no pain or discomfort when opening, closing nor excursion movements. Bilateral linea alba noted, bilateral mandibular tori and palatal torus. Bilateral moderate red tonsils.

Occlusion: Class II right side/Class I left side. Edge-to-edge bite. Abfraction noted on upper anterior teeth. Attrition noted on incisal surfaces of anterior teeth.

Calculus: Generalized heavy subgingival calculus on all quadrants. Moderate supragingival calculus generalized. Light stain on lingual of upper and lower anterior teeth.

Dental Charting



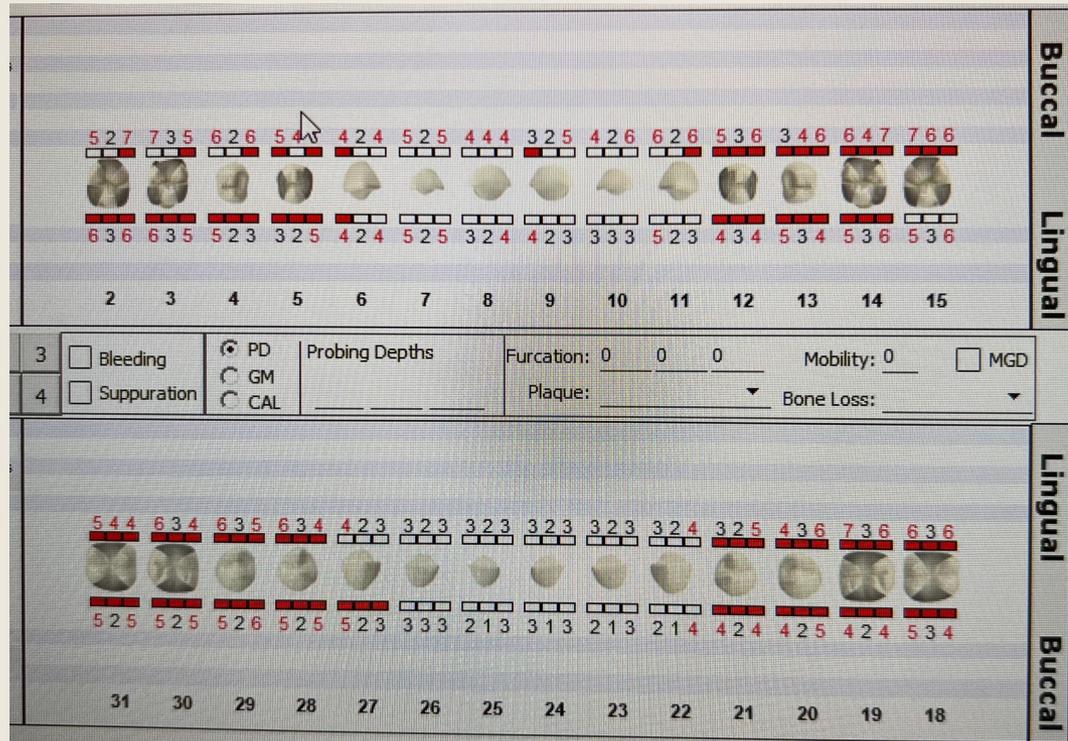
- Composite restoration on #5-D0
- #1, # 16, #17 and #32 not present
- Attrition noted and abfraction on #8 and #9.

Gingival Description and Periodontal Status

Gingival Description: Gingiva looks enlarged, red in color generalized, shiny, and fibrotic. The consistency is puffy and not resilient with red papillae, embrasure type II. Rolled marginal gingiva and moderate inflammation on the posterior lingual aspect of lower teeth.

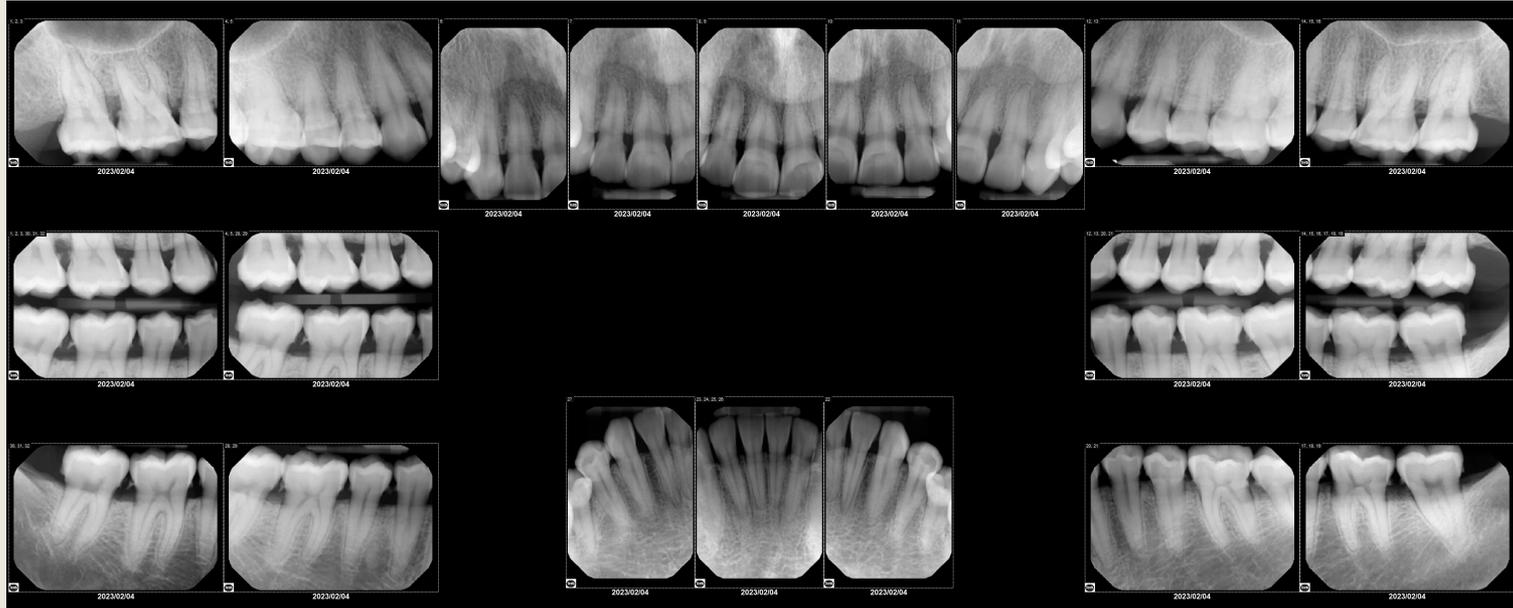
Periodontal Status: Periodontitis Stage II Grade B with radiographic evidence.

Periodontal Charting



- Generalized moderate bleeding on probing.
- Probing depth range between 3 and 7 on posterior teeth and 2-5 on anterior teeth
- No gingival recession, no furcations and no mobility present.

Radiographs



- Radiographic evidence of up to 15% horizontal bone loss generalized with localized vertical bone loss noted on mesial of tooth #2 and distal of #14.
- No radiographic evidence of caries.
- Composite restoration on #5-D0.
- #1, #16, #17 and #32 not present
- Generalized heavy interproximal calculus deposits.

Intraoral pictures



Dental Hygiene Diagnosis

Periodontal Diagnosis:

Periodontitis Stage II Grade B based on multiple factors:

- Patient's chief complaint was based on her concern of bleeding gums.
- Generalized moderate bleeding on probing and exploring.
- **Radiographic evidence of generalized bone loss with localized vertical bone loss noted on #2-M and #14-D.**
- Generalized inflammation on all quadrants. Generalized probing depth readings of 5-7mm were found on posterior teeth
- Generalized heavy subgingival calculus on all quadrants. Moderate supragingival calculus generalized.
- Localized visible biofilm on the facial of the maxillary and mandibular anterior teeth.

Dental Hygiene Diagnosis

Risk for Caries:

Patient is at moderate risk because the only restoration this patient had on #5-DO was over three years ago and no signs of active caries.

Patient often feels dry mouth, the cause of this may be because of the Albuterol inhaler.

Dental Hygiene Care Plan

Visit One:

Make sure the patient brings her asthma inhaler to all appointments

- Educate about the proper way of how to use the inhaler and advise to rinse with water after the use of the albuterol inhaler
- PI/OHI: Spool flossing method introduced, provident 5000 recommended, no whitening toothpaste.
- Exposure of digital radiographs FMS.
- Scaled quadrant 4 with ultrasonic and hand scalers.
- Oraqix(2.5% lidocaine and 2.5% prilocaine) used for pain management.
- Referral to a Dentist for a custom-fitted mouthguard
- Meditation, yoga, and relaxing activities recommended to help with the stress, hence, grinding teeth.

Visit Two:

- PI/OHI: Spool flossing method introduced.
- Evaluate Q4 previously scaled.
- Scale quadrants 2 and 3 with ultrasonic and hand scalers.
- Oraqix(2.5% lidocaine and 2.5% prilocaine) used for pain management.

Dental Hygiene Care Plan

Visit Three:

- Water floss introduced
- Evaluate quadrants previously scaled
- Scale quadrant 2 with ultrasonic and hand scalers.
- Oraqix(2.5% lidocaine and 2.5% prilocaine) used for pain management.
- 5% NaF Varnish applied for caries prevention and to help with the sensitivity on #8 and #9. Post-op instructions given
- Arestin placed on the following sites after obtaining patient's consent
 - #2 BM: 6mm
 - #3DL: 6mm
 - #3ML: 5mm
 - #3DB: 6mm

Arestin post-treatment instruction given

Visit Four:

- Evaluated sites where Arestin was placed, pocket depth reduction:
 - #2 BM: 6mm
 - #2 BM: 5mm
 - #3DL: 5mm
 - #3ML: 4mm
 - #3DB: 5mm

Implementation

Visit One(Initial visit):

- Exposure to FMS digital radiographs were completed. The professor and I both demonstrated to Miss. M the radiographs and explained to her the bone loss, and the amount of subgingival calculus observed interproximally. She understood better how the calculus contributed to her bleeding.
- Explained the importance of bringing the inhaler to each appointment visit and the proper usage of the albuterol inhaler to prevent candidiasis.
- Explained the consequences of using the inhaler and how to prevent candidiasis by rinsing with water right after the use of the inhaler
- 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 and hand instruments. Oraqix(2.5% lidocaine and 2.5% prilocaine) was used for pain management.
- An adult referral was given to her to see a general dentist for a custom fitted mouthguard

Implementation

Visit Two (revisit):

Pt. presents to the appointment with her albuterol inhaler, she reported that there was no changes in medical history, no recent hospitalizations/surgeries. Intraoral: WNL. Patient reports she is being compliant with spool-flossing method and she has been noticing less bleeding.

- Gingiva on Q4 previously scaled appears pink, normal size, fits snugly around teeth and the consistency is firm and resilient, mild to moderate marginal inflammation with light bleeding upon exploring. Residual calculus found on #31-D and #25 MD
- Re-evaluated, power toothbrush introduced, and explained the benefits of it. Scaled residual calculus found during re-evaluation and scaled Q2 and Q3 with cavitron and hand instruments. Oraqix (2.5% lidocaine and 2.5% prilocaine) was used for pain management.

Implementation

Visit Three (revisit):

- Pt. presents to her dental appointment with her inhaler for asthma. She reported no changes in medical history, and no recent hospitalization/surgeries. Miss. M mentioned that she is still flossing once a day before going to bed but has not purchased the electric toothbrush yet. She noticed less bleeding on the quadrants previously scaled and she seems well motivated. IO: WNL.
- Gingiva in Q2 and Q3 previously scaled appears pink, normal size, fits snugly around teeth, firm and resilient and some stippling noted on lower anterior teeth, light bleeding upon exploring on lingual of posterior teeth. Residual calculus on #9-MD, #10-MD.
- Review of the flossing method and the patient performed well, the patient has not been to her dentist for a custom-fitted mouthguard but she started doing some meditation at home.
- Debridement of residual calculus and proceeded to debride the Q1 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 for prevention and off-label to help with the sensitivity. Post-op instructions were given to the patient
- *A copy of Ms. M digital radiographs were given to her.

Challenges during treatment

The challenge that I faced throughout her treatment was the use of ultrasonics especially on teeth #8 and #9 on the facial aspects because Miss. M was very sensitive in those areas due to dentin exposure, hand instrumentation was used for these two teeth. Patient was very cooperative, however, she was not compliant with the electric toothbrush.

Ultrasonic was used with precaution due to her asthma condition, but all proper protocols were followed, albuterol inhaler at each appointment and the patient was well-controlled.

Most of the debridement was accomplished through hand scaling and patient was comfortable during her appointments.

Evaluation of Care- Outcome of Care-Prognosis

In summary, the evaluation of care for a patient with heavy calculus and bleeding gums, asthmatic, and sensitive front teeth involves addressing their oral hygiene, managing sensitivity, managing their asthma, and providing a prognosis based on their overall health and adherence to recommended care.

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

- The patient's asthma and teeth grinding can have a significant impact on her oral health, as they can exacerbate gum disease and cause sensitivity. Therefore, it is critical to manage these conditions appropriately to prevent further damage and complications.
- Moreover, the patient's periodontitis requires a thorough and ongoing treatment plan to address the underlying cause of the disease and prevent its progression. This may involve regular dental cleanings, scaling and root planing, and possibly surgical intervention to restore the health of the gums and prevent tooth loss.
- Finally, the patient's sensitivity in the front teeth requires a personalized approach to address the underlying cause of the problem. This may involve using desensitizing toothpaste and fluoride application.
- Overall, this case study emphasizes the importance of a personalized and comprehensive approach to oral healthcare, taking into account the unique circumstances of each patient to ensure that they receive the most effective and appropriate treatment and care.