

New York City College of Technology  
Department of Dental Hygiene  
DEN 2300 Case Presentation

Batel Dostov  
12/5/19

# Patient Profile

- Ms. L. is a 73 year old African American female
- Middle class, living in Brooklyn. Has a primary dentist, but gets her Prophylaxis at New York City College Of Technology due to price and convenience.
- Her last dental exam was in September 2018 at our clinic
- Patient states that she uses a manual toothbrush twice a day, flosses three times a day, uses a tongue cleaner and desensitizing toothpaste.

# Health History Overview

- First blood pressure reading was taken during medical history – BP-129/96 P83.
- Second reading was taken after extra oral examination BP-114/85 P67.
- None drinker/smoker

## Medical Conditions

- Suffers from hypertension
- Was hospitalized in July of 2019 due to a right hip replacement, patient was told by her orthopedic surgeon to take 2000mg of Amoxicillin an hour before the dental appointment

## Current Medications

- Olmesartan
- Amoxicillin

# EXPLANATION OF CONDITION

Hypertension – abnormal high arterial blood pressure.

Normal – 120/80

Prehypertension – 120-139/80-89

Hypertension – 140-159/90-99

## Etiology

- Can be primary hypertension: accounts for 90% of this conditions
- Risk factors – Tobacco, heredity, overweight, salt consumption, race (higher incidence in African Americans), age (increase with age), environmental (stress)
- Secondary hypertension : oral contraceptives, renal disease, endocrine disorders and certain medications.

## Signs and Symptoms

- Headaches, dizziness, visual disturbance, weakness, tingling of extremities

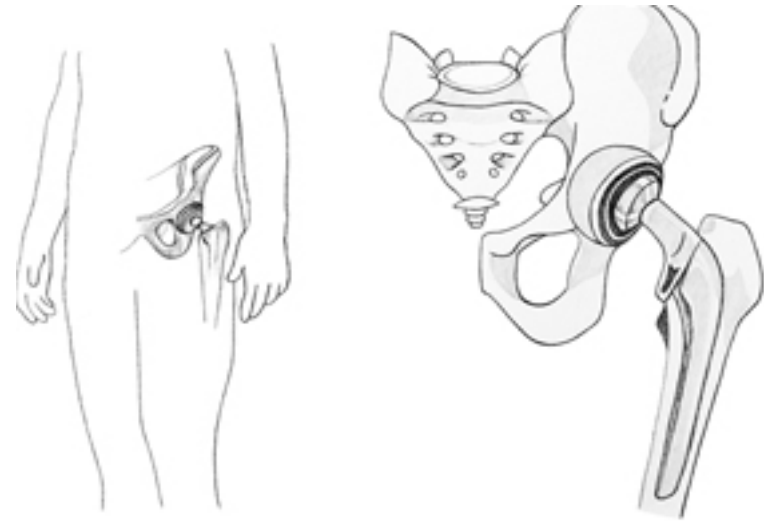


# EXPLANATION OF CONDITION

## HIP REPLACEMENT

Reasons for surgery:

1. Arthritis
  2. Bone fracture
  3. Bone diseases or tumors
- An incision is made to hip area, the diseased tissue is removed and placed with an artificial joint that connects into the femur.
  - Ms. L. was using a cane to assist her in walking and mentioned being clear of any arthritis.



# How Conditions Are Managed

## Hypertention

Lifestyle changes which include:

1. Weight loss – exercising daily
2. Diet – limit intake of sodium
3. Smoking cessation

## Medications

Ms.L consumes Olmesartan once daily; which is anti-hypertension medication that works by blocking Angiotensin II receptor. Blocking off this vasoconstrictor results in a decrease in blood pressure by dilating the vessels.

# How Conditions are Managed

Following a hip replacement surgery

- Exercising programs
- Walking aids
- Rehab, physical therapy (Ms.L. mentioned she was still in rehab)
- Medications
- Radiographic follow – ups

# Dental Hygiene Management

- Hypertension is a common undiagnosed condition because many patients do not get their yearly physical exam
- Those same patients are most likely to visit a dental office instead
- The main role of the dental team is to prevent condition from progressing or beginning by performing full assessments
- Blood pressure of 180/110 is cut off for dental treatment
- It is important to know side effects of anti-hypertension medications

Examples:

1. Calcium channel blockers cause gingival hyperplasia
  2. ACE inhibitors and angiotensin II receptor blockers can cause dry mouth and alter taste
  3. Beta blockers can cause dry mouth and taste change
- High Blood pressure may lead to uncontrolled bleeding while gingival manipulation
  - It is important to educate patients that are unaware they have this condition.

# Dental Hygiene Management

- According to the ADA people with a joint replacement are not in need of antibiotics prophylaxis
- However patients with complications in joint replacement surgery, antibiotic prophylaxis should be consulted with the Orthopedic surgeon before gingival manipulation.
- Ms.L. stated that her surgeon prescribed Amoxicillin and was recommended to take 2000mg before her dental appointments

# COMPREHENSIVE ASSESSMENTS



# Radiographs

FMS was taken September of 2018

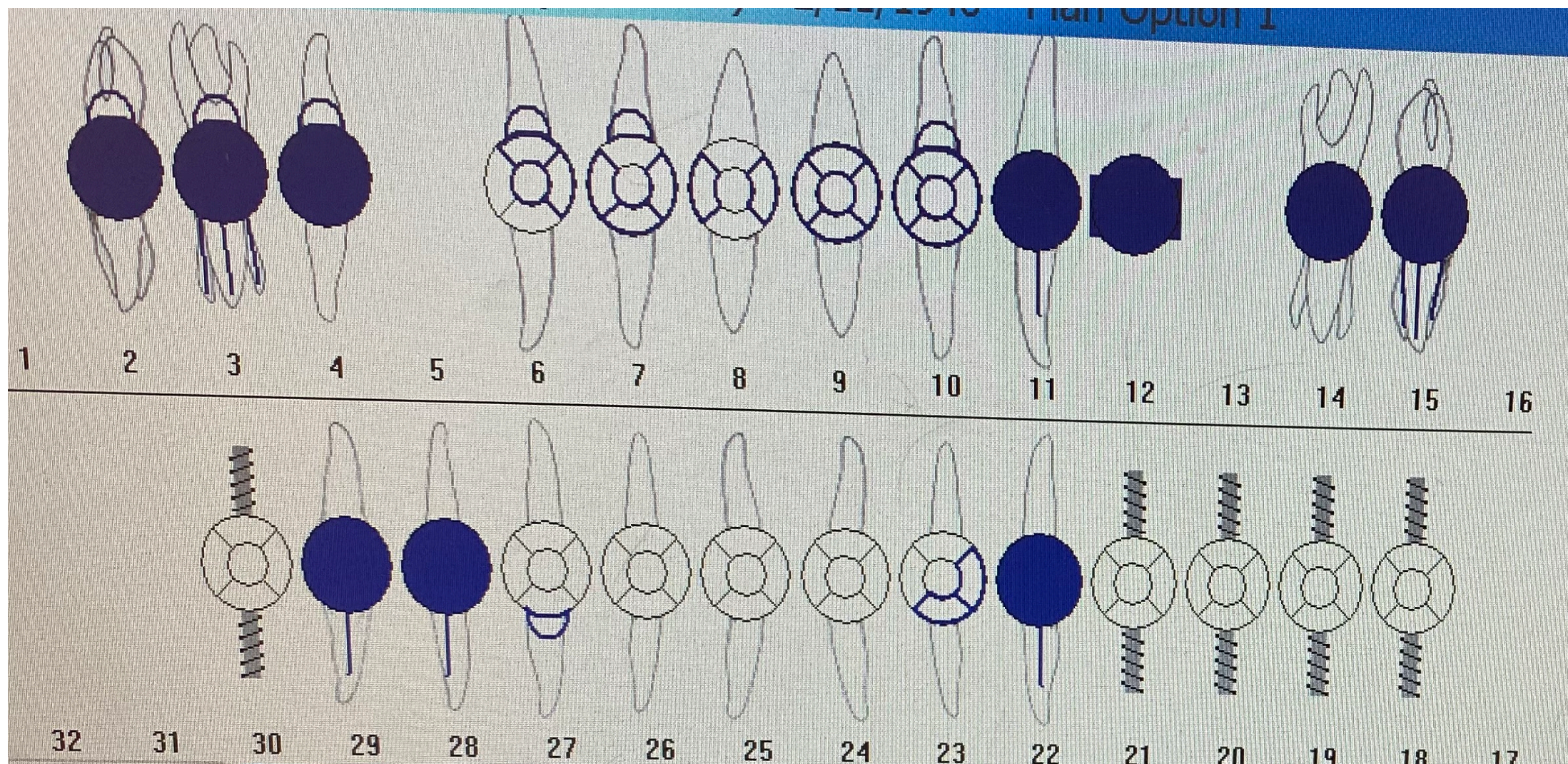


# Summary of Clinical Findings

- Intra oral exam showed scalloped lateral borders of the tongue
- Class of occlusion I, overjet – 4MM, overbite- 30%
- Moderate amount of biofilm buildup on anteriors with light biofilm on posteriors.
- PI score – 1.2



# Dental Charting





# Dental Charting

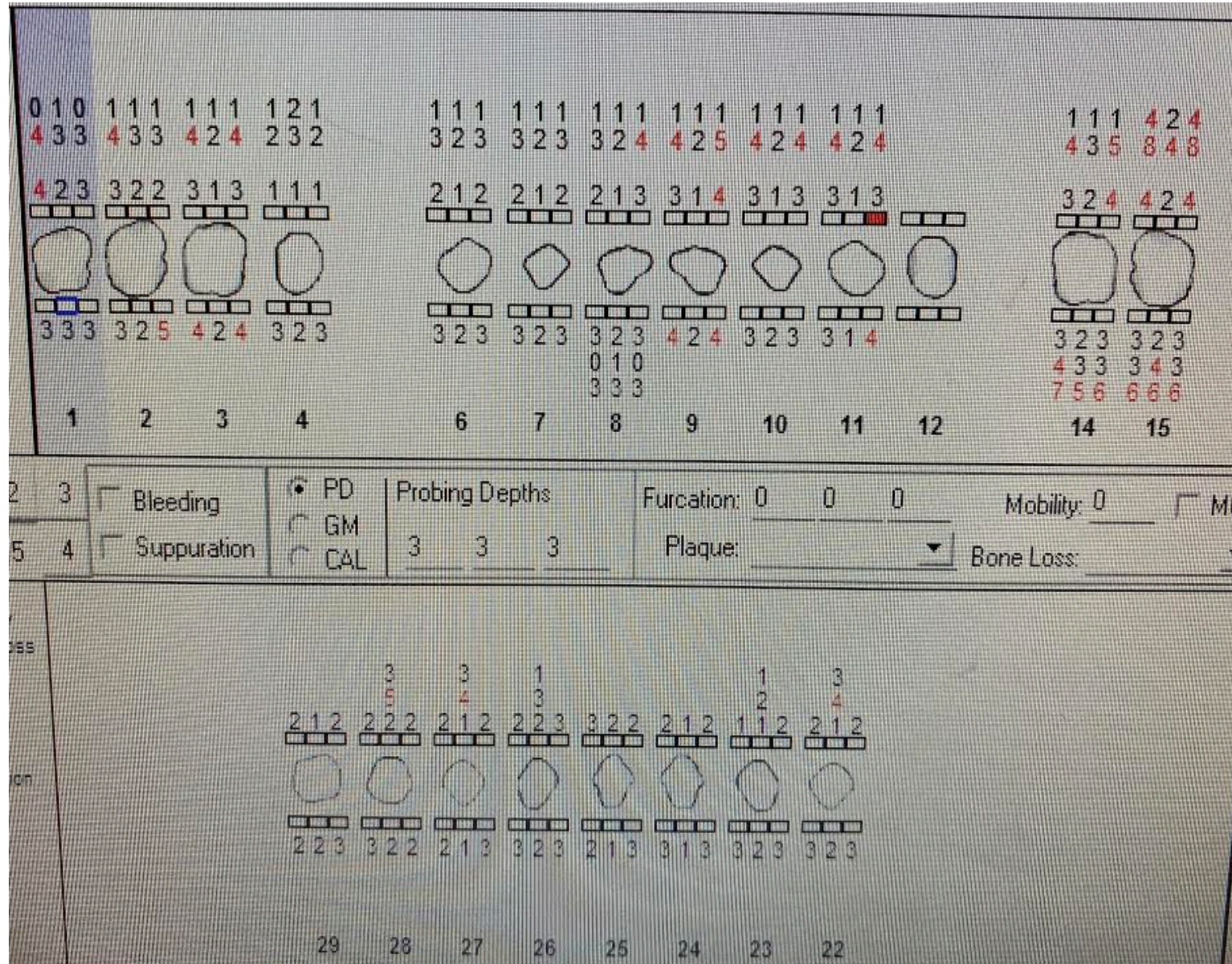
- Attrition with crowding on lower anteriors
- Slight mobility on anteriors
- Implants - #30, 21, 20, 19 , 18
- Root Canal Endo - #11, 22, 28, 29, 3, 15
- Patient is most likely missing all premolars on maxilla along with #16, 17, 32. Therefore the dental charting is not completely correct
- No clinical or radiographic evidence of caries present
- Crowns (porcelain fused to metal) – #1, 2, 3, 11, 22, 28, 29
- Bridge – #11-15 with porcelain pontic
- Composites - #6, 7, 8, 9, 10, 23, 27.

# Gingival Description & Periodontal Status

- Gingival description: Gingiva is pigmented with generalized mild inflammation, receded papillae, slightly spongy with BOP.
- Severe bone loss localized on buccal #15DB root with approximately 50% exposure, but no furcation was seen.

# Periodontal Charting

- Patient had significant amount of recession
- Generalized 2-3mm pockets, localized 4-5mm
- Implants were measured using a plastic probe.



# Dental Hygiene Diagnosis

- Periodontal Diagnosis: Type II periodontitis due to mild BOP, radiographic bone loss and exposure of BD root of #15. With slight mobility on mandibular and maxillary anteriors.
- If papilla was not as receded the pocket depth would deeper than 2-3mm.
- No clinical or radiographic evidence of caries present.
- No hard/clickable calculus was evident but moderate amount of biofilm build-up was seen, specifically interproximal anteriors.



Consent for  
Treatment/treatment  
plan

Perio Type <u>II</u>	Case value <u>L</u>
<b>Visit 1 Date:</b> <u>10/2/19</u> <b>Patient Education:</b> <input checked="" type="checkbox"/> TB_manual <input type="checkbox"/> power assisted <input checked="" type="checkbox"/> Interdental Aid <u>proxibrush</u> <input type="checkbox"/> Toothpaste <input type="checkbox"/> Rinse type _____  <b>Radiographs:</b> <input type="checkbox"/> Digital <input type="checkbox"/> Film <input type="checkbox"/> FMS <input type="checkbox"/> BWS (V/H) <input type="checkbox"/> Pan <b>Debridement:</b> <input type="checkbox"/> Quadrant _____ <input checked="" type="checkbox"/> Whole Mouth <b>Pain Management:</b> <input type="checkbox"/> Topical <input type="checkbox"/> Oraqix <input type="checkbox"/> Local Anesthesia <b>Coronal Polish:</b> <input checked="" type="checkbox"/> Engine <input type="checkbox"/> Air Polisher: Agent _____ <b>Other:</b> <input checked="" type="checkbox"/> Topical Fluoride: <u>varnish fluoride</u> (Method and type) <u>5%</u>	<b>Visit 2 Date:</b> _____ <b>Patient Education:</b> <input type="checkbox"/> TB_manual <input type="checkbox"/> power assisted <input type="checkbox"/> Interdental Aid _____ <input type="checkbox"/> Toothpaste <input type="checkbox"/> Rinse type _____  <b>Radiographs:</b> <input type="checkbox"/> Digital <input type="checkbox"/> Film <input type="checkbox"/> FMS <input type="checkbox"/> BWS (V/H) <input type="checkbox"/> Pan <b>Debridement:</b> <input type="checkbox"/> Quadrant _____ <input type="checkbox"/> Whole Mouth <b>Pain Management:</b> <input type="checkbox"/> Topical <input type="checkbox"/> Oraqix <input type="checkbox"/> Local Anesthesia <b>Coronal Polish:</b> <input type="checkbox"/> Engine <input type="checkbox"/> Air Polisher: Agent _____ <b>Other:</b> <input type="checkbox"/> Topical Fluoride: _____ (Method and type) _____

# Implementation –Treatment

Treatment and assessments were done in one re-care visit.

## 1. Preventive Services:

- PI score was fair and most colored areas were facial and interproximal.
- The oral hygiene instructions firstly thought was the Modified Bass method in order to address missed areas on the facial and buccal surfaces.
- Secondly, Ms.L was taught how to use a proxa-brush for her receded papilla, which she liked and thought was very helpful since was very easy to use.

# Implementation –Treatment

## 2. Debridement Performed:

- Ultrasonic was used on anterior teeth only with the purple handle
- The universal curette was used on posteriors subgingival only
- Sickle scaler was used on anteriors
- No instrumentation was used on implants

Patient was extremely sensitive from cold water from cavitron due to recessions. I also tried to use the cavitron as fast as possible and mostly hand scale.

- Engine polished using fine paste
- Gave a 5%NAF varnish treatment, making sure to apply it on sensitive areas.



# Evaluation of Care – Outcome of Care - Prognosis

- During this appointment it was important for me to teach proper home care instructions
- One positive outcome of care was that Ms.L. easily understood and was able follow those instructions given to her in order to keep the plaque levels low.

# Referrals

- Ms.L. was given a referral to a periodontist to evaluate the bone loss and exposed root on #15.

# Continued Care Recommendations

- Originally Ms.L was on recall for every 6 months, which I had changed to every three months due to the fact that:
  1. She is elderly with less dexterity, which will effect the quality and effectiveness of her home care responsibilities
  2. The amount of build up she had during her recare appointment
  3. All the restorative work she has done puts her at higher risk for build up

# Final Reflection

- The patient really enjoyed learning something new such as the proxy brushes and how they can be used to benefit her overall oral health. Looking back at her chart I realized she was consistently taught to floss and brush, but never use a proxa-brush
- What I could've done differently is examine her implants better, even though I probed them using a plastic probe I should have checked closely for build up but instead I was too cautious to do something to them due to a fear that I would cause more harm than good if I damaged or irritated the implant.

# Reference

- <https://www.niams.nih.gov/health-topics/hip-replacement-surgery#tab-causes>
- <https://www.ada.org/en/member-center/oral-health-topics/antibiotic-prophylaxis>
- Southerland, Janet H et al. “Dental management in patients with hypertension: challenges and solutions.” *Clinical, cosmetic and investigational dentistry* vol. 8 111-120. 17 Oct. 2016, doi:10.2147/CCIDE.S99446
- Book – **Wilkins, Esther M.**Wyche, Charlotte J.**Clinical Practice Of The Dental Hygienist.** Philadelphia : Wolters Kluwer Health/Lippincott Williams & **Wilkins**, 2013. Print.