



High Blood Pressure: Hypertension

BY: Pablo Alvarado


Patient Profile

- Patient's name: Ms. H.A.
- Age: 55 years old
- Gender: Female
- Ethnicity: African American
- Last Medical Exam: April 2021
- Dental Hx: Last dental exam April 2021. Patient went to NYU Dental to get a periodontal evaluation
- Patient has been coming to our clinic for many years. She reports brushing twice a day with a manual toothbrush with medium bristles in conjunction with Colgate toothpaste. She reports flosses 1x per day and she uses Listerine at night.

Medical History Overview

- Vitals at last visit: BP: 132/88 (Stage 1 Hypertension) P:74. ASA II due to medication and allergies.
- Patient has an allergy to Morphine, Latex, and Sulfa drugs.
- Patient reported that she quit smoking cigarettes within the past few months of 2021.
- Medical Condition: Stage 1 Hypertension, arthritis in knee.
- Current medications:
 - Atenolol 75mg for high blood pressure 1x per day
 - Hydrochlorothiazide 125mg for high blood pressure 1x per day
 - Ibuprofen 800mg for arthritis pain relief as needed
 - Zyrtec for seasonal allergies, as needed
- Patient is a 2-time breast cancer survivor. She had a CAT scan done in April 2021 to evaluate benign nodules found in her lungs.

What is High Blood Pressure (Hypertension)?

Blood Pressure Categories			
BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		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
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

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- Hypertension is a "silent killer". Meaning no symptoms may be present, but it is causing damage to your circulatory system which can later become a heart attack, stroke, kidney failure, vision loss, and sexual dysfunction.
- According to the American Heart Association, a blood pressure under 120/80 is considered healthy and normal. Above 120/80 is considered elevated and can put you at risk of developing hypertension if nothing is done to lower your blood pressure.
- One can lower their blood pressure by making changes to their lifestyle and diet; getting enough sleep, eating healthier meals, losing weight, quitting smoking, and regular exercise.

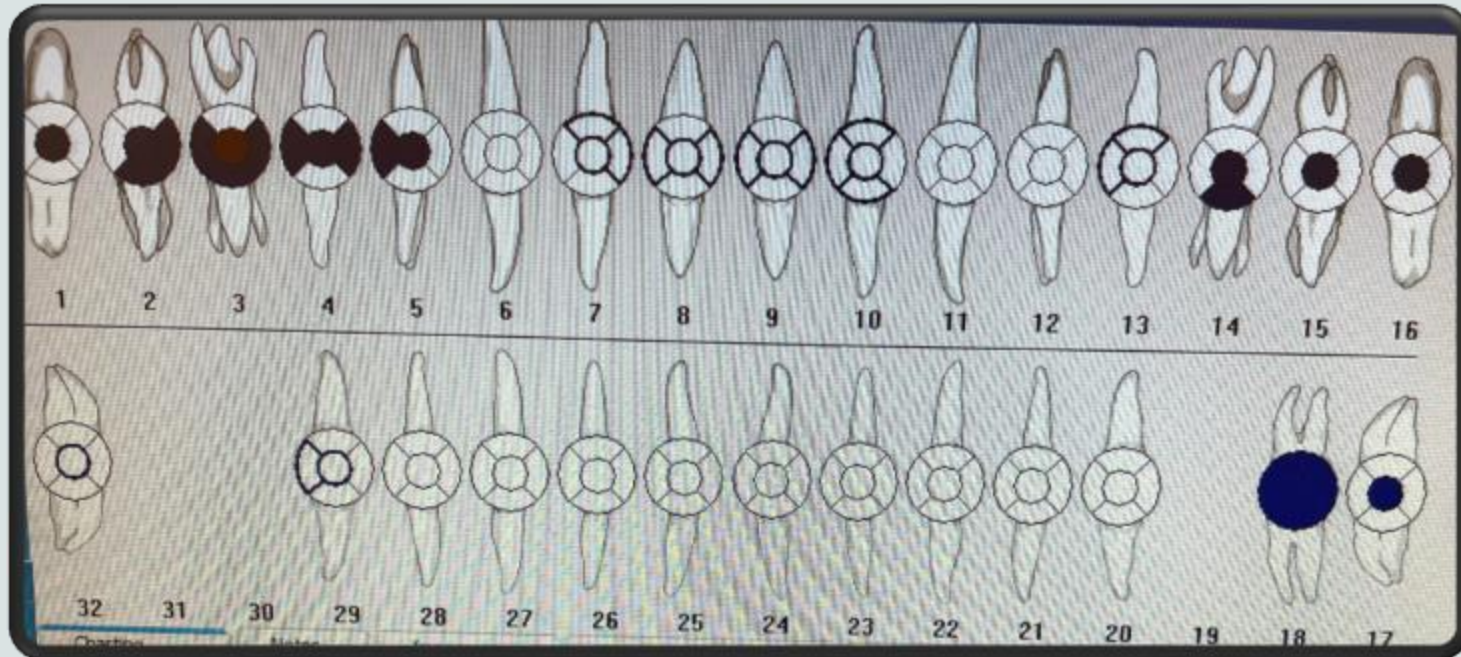
Dental Implications of Hypertension

- According to a study done in 2010 on "Periodontal Bacteria and Hypertension", there is evidence to suggest a direct relationship between the levels of subgingival periodontal bacteria and both systolic and diastolic blood pressure as well as hypertension prevalence. More research needs to be done, but this could mean that treating periodontal disease could be a way to aid in lowering ones high blood pressure.
- Patients taking medication in order to lower their high blood pressure (diuretics, calcium channel blockers, beta blockers, ACE inhibitors, Etc) might be more susceptible to:
 - Dry mouth
 - Lichenoid reactions
 - Gingival hyperplasia
 - Alterations in taste

Head and Neck Examination

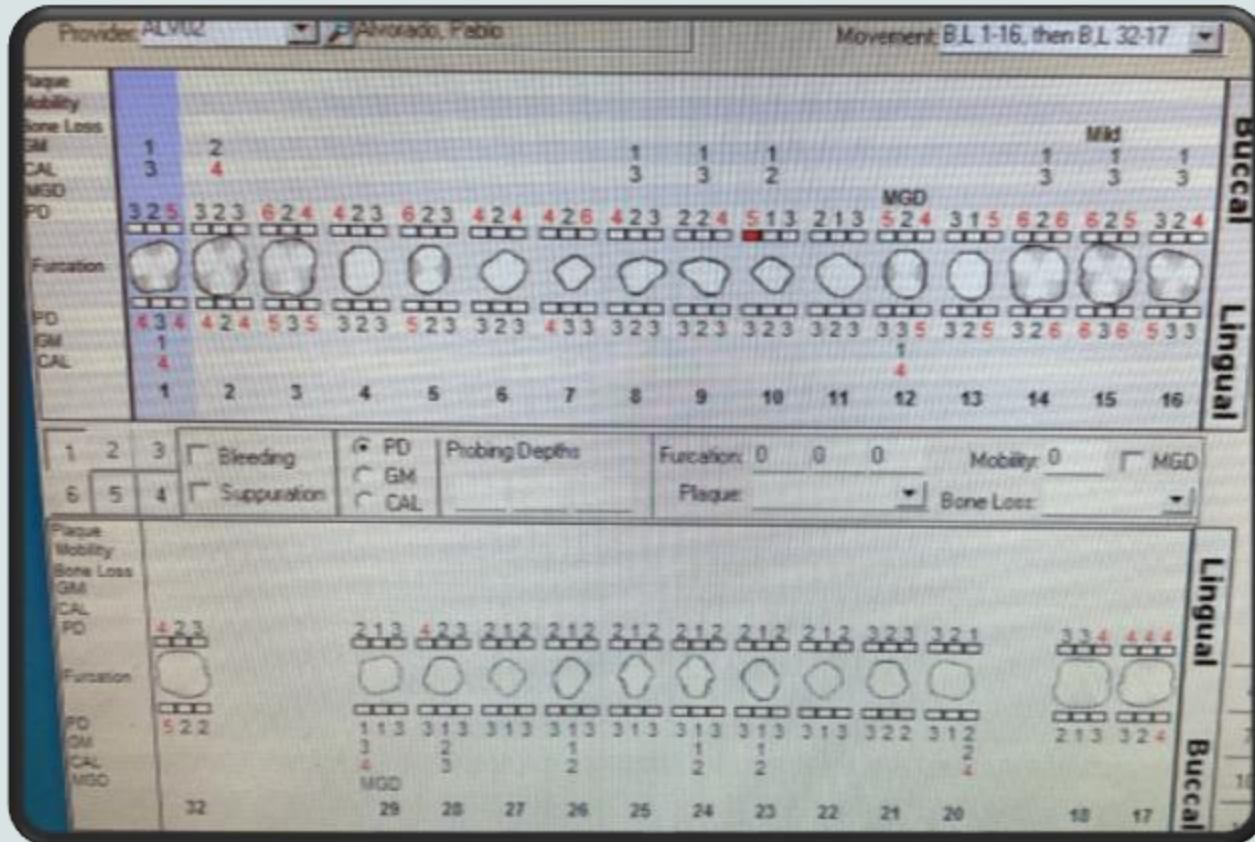
- EO:WNL
- IO: 2mmx 3mm soft, white lesion at gingival margin of #14 palatal. Patient followed up with dentist at NYU and they determined it was a benign lesion.
- Occlusion: Class 1 Bilateral
- Overjet:3mm
- Overbite:20%
- Gingival Statement: Localized moderate to severe marginal inflammation of the posterior linugals and palatals. Rolled lingual ginigva of the mandibular anteriors.

Dental Charting



- Patient had 19 amalgam restoration surfaces and 19 composite restoration surfaces
- #3 has a suspected carious lesion. Patient was given a referral to get it examined at her next dental visit.
- Patient was missing #19,30, and 31 due to them being extracted.
- #18 has a PFM crown

Periodontal Charting



- Generalized 4-5mm probing depths with localized areas of 6mm
- Localized areas of 1-3mm of recession
- Mild BUP
- Localized marginal gingival defects (MGD) on #29 buccal and #12 buccal

Dental Diagnosis

- Case Value: Medium
- Periodontal Status: Stage III, Grade B. Based on missing teeth, CAL, and probing depths. Patient refused taking radiographs because she is a breast cancer survivor.
- Caries Risk: Moderate
- Staining: Light. Localized to mandibular anteriors.

Treatment Plan

- **1st visit:**
 - Teach the patient about proper toothbrushing method for adequate plaque removal at home (modified bass)
 - Hand scale quadrants 1 and 4.
 - No radiographs to be taken as per patient's request.
 - A referral was given to evaluate the carious lesion on #3 occlusal and for the white lesion on #14 palatal
- **2nd visit:**
 - Re-evaluate gingiva around quadrants 1 and 4
 - Teach patient about using a waterpik at home in order to clear any plaque located in her deep pocket depths.
 - Hand scale quadrants 2 and 4
 - Selective engine polishing
 - Application of 5% topical sodium fluoride varnish to areas of recession.
 - Advise patient to come back in 3 months for periodontal maintenance.

Reflection

- The treatment Ms. H.A. was interesting because she was the first patient I saw who was taking more than 1 medication and she was my first Stage III Grade B perio case. I was able to complete all my treatment for her in 2 visits, but I feel like I could have finished her treatment in 1 visit if I had more control over her conversational habits. She tends to speak a lot and I still have not learned a proper way to politely tell her we need to focus on her cleaning and treatment. Overall, it was a great learning experience and the patient was happy with her treatment and my gentle composure throughout her treatment.