

DEN 2300
Case Presentation

Kennedy Campbell

12/3/2019

Clinical Patient

- Ms. P is a 45 year old Black female.
- She is a student with no insurance. City tech is her only dental care until after she graduates and attains employment.
- She is a non-drinker and non-smoker.
- Ms.P says she has never had a dental exam but her last dental cleaning was May 2018. She had 4 bitewings during the same visit and a FMS September 2018.
- She says her teeth bleed when brushing and brushes 2 times a day and does not floss or use oral rinses. Her anterior teeth are sensitive to cold food and drinks.

Chief Complaint

- Patient says: “I want to remove yellow from between my teeth”.
- Other complaints were that her teeth bleed when brushing and her anterior teeth are sensitive to cold food and drinks.

Health History

- Blood Pressure:108/75
- Pulse:85
- ASA:2
- Patient has diabetes.
- Patient is a non-drinker and non-smoker.

Health Condition

- Patient presents with diabetes and is taking Metformin 500mg 2x daily.
 - Her last visit with a doctor was in November of 2019.
 - Tooth sensitivity: The patient has a sensitivity to cold foods and air being blown on her teeth.
 - Sensitive teeth is a dental pain that causes sharp localized pain when teeth are in the presence of stimuli such as air or cold temperature.
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- Reference: Markowitz, K., and D. H. Pashley. "Discovering New Treatments for Sensitive Teeth: the Long Path from Biology to Therapy." *Wiley Online Library*, John Wiley & Sons, Ltd (10.1111), 19 Sept. 2007, onlinelibrary.wiley.com/doi/full/10.1111/j.1365-2842.2007.01798.x?casa_token=T9ohNuxuBLkAAAAA%3AzMS9N87KmFo3vd2G-_bF_PBZMB8jbp-ufHzADhW_6Ot4z-bMmKmdInCIND9JK9XZuusn4sPLRjl1FGw.

Health condition cont.

- Increased hypersensitivity slows down the care for controlling plaque. Hypo mineralized teeth have really high sensitive levels to cold and even tooth brushing. Cracks and fractures in the enamel can also cause sensitivity as well as receding gum tissue.
- Reference Tonguc, Mine Ozturk, et al. "Tooth Sensitivity in Fluorotic Teeth." *European Journal of Dentistry*, Dental Investigations Society, July 2011, www.ncbi.nlm.nih.gov/pmc/articles/PMC3137440/.

DIABETES

- Diabetes is broken down into 2 types and involves problems with the hormone insulin in the pancreas. The production of insulin can be nonexistent due to the body producing antibodies to attack the pancreas, this is called **type 1 Diabetes**, or it could be that the body isn't reacting to the presence of insulin or the amount of insulin is insufficient, this is called **type 2 Diabetes**.
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- type 1 Diabetes is caused when the body creates antibodies to attack the pancreas. It is believed to be due to genes or environmental factors but it is not definitive. Type 2 Diabetes is caused when the receptors for insulin are blocked with fat or the body isn't producing enough insulin. This can be due to a decrease in activity or due to obesity.
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DIABETES SYMPTOMS

- Type 1
- Symptoms can occur very suddenly and can be severe. These include polyhagia, polydipsia, polyurea, fatigue, blurred vision, and dry mouth.
- Type 2
- Similar to type one but may show no signs or can be gradual. Symptoms include itchy skin, an increase in weight, yeast infections, erectile dysfunction, or slow healing.

Managing Diabetes

- Diabetes can't be controlled but the patient can manage by
- Keeping blood sugar levels as nearest to normal by balancing consumption of foods.
- Maintaining blood cholesterol levels by avoiding excessive amounts of sugar and processed starches.
- Taking medications as recommended.
- Exercising daily or increasing exercise time.
- Maintaining appointments with doctor.
- The patient was taking 500mg of metformin to help her keep control of her blood sugar for type 2 diabetes.

Diabetes References

- Sinha, S. (n.d.). Metformin. Retrieved from <https://www.drugs.com/metformin.html>. • Symptoms & Causes of Diabetes. (2016, December). Retrieved from
- <https://www.niddk.nih.gov/health-information/diabetes/overview/symptoms-causes>.
- <https://www.medicalnewstoday.com/articles/323627>
- <https://www.mouthhealthy.org/en/az-topics/d/diabetes>

Dental Hygiene Management

- The patient was very sensitive to the air from the air/water syringe being blown on her mandibular anterior teeth.
- This sensitivity caused for an additional appointment because a block was needed in order to scale quadrants 3 and 4.
- When working with diabetes patients you have to be careful of an increased risk in bleeding and infection. It can be harder for patients with diabetes to form blood clots. The patient should eat before their appointment and the appointment should be scheduled in the morning. Eating can help prevent the patient from suffering hypoglycemia and we don't want our patients fainting.

Comprehensive Assessments

Crest of bone: Localized, moderate, horizontal bone loss on anterior teeth.

Calculus: 7M,8D,9D, 10D,25DM, 24DM,19D,21D

Radiographs



Clinical Findings Summary

- Extra oral/Intraoral Exam: Patient has moles on front and back of her neck
- Her upper left lip near the commissure has ½ inch linear flat scar.
- Patient had nodule on lower left lip near tooth 23 that was resolved by her next visit.
- Patient was classified as a heavy due to localized supra and subgingival calculus.

Clinical findings summary

- Occlusion: Class I
- Overbite:10%, Overjet:3mm
- Mobility: +1 on teeth 24 and 25.
- Carious lesion: Teeth #18,#19,and #31.
- Deposits: Moderate supragingival calculus on mandibular anterior teeth.

Dental Charting

The screenshot displays a dental charting software interface. At the top, there are two rows of tooth diagrams representing the upper and lower dental arches, numbered 1 through 16 and 32 through 17 respectively. Below the charts is a data table with columns for Order, Date, Account Code, Description, Tooth, Sur face, Provider, Fee, Status, and Date Created. The table contains several entries related to dental conditions. To the left of the table is a 'View Mode' section with color-coded buttons for different types of lesions: Maroon (C), Red (P), Blue (P), Navy (Q), Yellow (X), and Purple (R). Below this is an 'Entry Mode' section with buttons for 'P', 'R', and 'Q', and dropdown menus for 'Prvdr: D1C00' and 'Hyg: D1C00'. A checkbox for 'Show Ins Benefits' is also present.

Order	Date	Account Code	Description	Tooth	Sur face	Provider	Fee	Status	Date Created
		C0009	Caries/Decay	13	D	D1C00	0	Condition	10/3/2019 9:46 pm
		C0017	Partially Erupted Tooth	16		D1C00	0	Condition	9/15/2016 7:35 pm
		C0009	Caries/Decay	18	B	D1C00	0	Condition	9/19/2019 10:05 pm
		C0009	Caries/Decay	19	B	D1C00	0	Condition	3/27/2018 4:08 pm
		C0004	Abscess	24		D1C00	0	Condition	10/3/2019 9:46 pm
		C0004	Abscess	25		D1C00	0	Condition	10/3/2019 9:46 pm
		C0009	Caries/Decay	31	B	D1C00	0	Condition	9/19/2019 10:05 pm

Carious lesions: 13D, 18B, 19B, and 31B
Partially erupted tooth: 16
Abscess: 24 and 25

Caries risk assessment

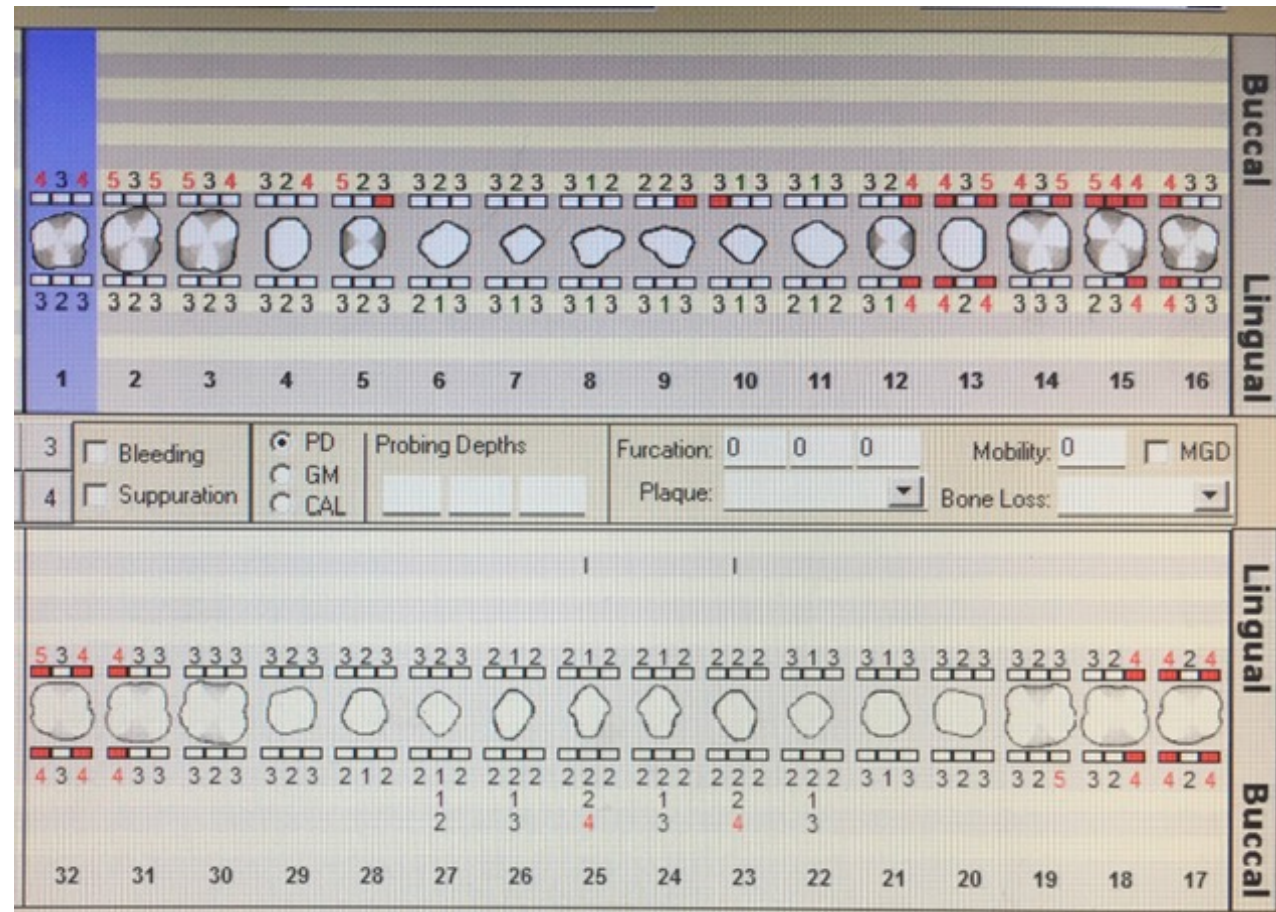
Contributing Conditions		Low Risk	Moderate Risk	High Risk
Check or Circle the conditions that apply				
I. Prolonged Exposure (through drinking water, supplements, professional appliances, formula, etc.)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
II. Sugary Foods or Drinks (including juice, carbonated or non-carbonated soft drinks, energy drinks, medical syrups)	Primarily as supplements <input type="checkbox"/>			Frequency of prolonged exposure most exposures/day <input type="checkbox"/>
III. Caries Experience of Patient, Caregiver and/or other Siblings (For patients ages 8-14)	No carious lesions in last 24 months <input type="checkbox"/>	Carious lesions in last 7-23 months <input type="checkbox"/>	Carious lesions in last 6 months <input checked="" type="checkbox"/>	
IV. Dental Home established patient of record, routine regular dental care in a dental office	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
General Health Conditions		Check or Circle the conditions that apply		
I. Special Health Care Needs (developmental, physical, medical or mental health issues that pose a barrier to performance of adequate oral health care by themselves or caregivers)	<input checked="" type="checkbox"/> No	Yes (average 1-4) <input type="checkbox"/>	Yes (sign 6-14) <input type="checkbox"/>	
II. Chronic/Medical on Therapy	<input checked="" type="checkbox"/> No		<input type="checkbox"/> Yes	
III. Eating Disorders	<input type="checkbox"/> No	<input type="checkbox"/> Yes		
IV. Medications that Reduce Salivary Flow	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes		
V. Drug/Alcohol Abuse	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes		
Clinical Conditions		Check or Circle the conditions that apply		
I. Cavitated or Non-Cavitated (incipient) Carious Lesions or Restorations (Sealant or microleakage or both)	Has any carious lesions or restorations in last 36 months <input type="checkbox"/>	1 or 2 new carious lesions or restorations in last 36 months <input checked="" type="checkbox"/>	3 or more carious lesions or restorations in last 36 months <input type="checkbox"/>	
II. Teeth Missing Due to Caries in past 36 months	<input type="checkbox"/> No		<input type="checkbox"/> Yes	
III. Visible Plaque	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes		
IV. Unusual Tooth Morphology (deep or wide gingival sulci)	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes		
V. Interproximal Restorations - 1 or more	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes		
VI. Exposed Root Surfaces Present	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes		
VII. Restorations with Overhangs and/or Open Margins (Open Contacts with food impaction)	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes		
VIII. Dental/Orthodontic Appliances (Fixed or removable)	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes		
IX. Severe Dry Mouth (Xerostomia)	<input type="checkbox"/> No		<input type="checkbox"/> Yes	
Overall assessment of dental caries risk:		<input type="checkbox"/> Low	<input type="checkbox"/> Moderate	<input checked="" type="checkbox"/> High
Patient instructions: <i>Brush teeth with fluoride toothpaste every 2-3 times a day. Use floss daily. Drink water. Avoid sugary drinks. Eat a healthy diet.</i>				

Patient presented as high risk caries. Teeth 18B,19B,31B and 13D all contained suspicious carious lesions.

Gingival Description and Periodontal Status

- Patient presents with bulbous and localized inflamed mandibular gingiva anteriorly.
- She is a perio type II with 3-5mm pockets with localized bleeding upon probing

Periodontal Charting



Probing depths range from 1mm – 6mm as deepest pocket.
Localized recession from 2-4mm.

Dental Hygiene Diagnosis

- Patient presents with Type II perio with 3-5mm pockets and a heavy calculus case value. Her BOP was less localized to molars and premolar in upper left quadrant.
- Radiographs provide calculus sites and significant generalized horizontal bone loss evidence.
- Patient does not floss or use rinses which helps in the accumulation of calculus and caries risk

Dental Hygiene Care Plan

- Our plans for this patient is to restore her gingival health:
- Help the patient reduce her caries risk .
- Help the patient reduce sensitivity.
- Patient does not floss so I suggested flossing at least once a week with a dental pic instead of loose floss since she did not like flossing with string floss and at least rinsing with Listerine (sensitivity) on the days she does not floss before bed.
- Recommended Sensodyne toothpaste to patient for sensitivity

Dental Hygiene Care Plan

- Patient appointments will be Tuesdays and Thursdays
- Pain management planned: Topical(20% Benzocaine) and Oraquix for debridement.
- Oral self care: Rinse and toothpaste options for sensitivity and flossing options

Dental Hygiene Care Plan

Visit 1: Cambra. OHI and disclose. Patient education (Sensodyne toothpaste education), Scale quadrant 1. 20% Benzocaine for Pain management.

V2. OHI and disclose. Patient education: Flossing and Listerine rinses (Total Care). Expose FMS. Scale quadrant 1 and 2. 20% Benzocaine for pain management

V3. OHI, and disclose. Patient education: Re-evaluate TB, flossing and rinses. Re-evaluate quadrants 1 and 2. Scale quadrants 3 and 4 with hand instruments and ultrasonic. Engine polish with fine grit paste and 5% NaF varnish treatment.

Consent for Treatment Plan

Form to be entered in patient record and archived

Visit 1: <u>4/19/18</u> (Date)	Visit 2: <u>5/</u> (Date)	Visit 3: _____ (Date)	Visit 4: _____ (Date)
Patient Education: <input checked="" type="checkbox"/> TB manual <input type="checkbox"/> power assisted <input type="checkbox"/> Interdental Aid _____ <input type="checkbox"/> Toothpaste _____ <input type="checkbox"/> Rinse _____	Patient Education: <input type="checkbox"/> TB manual <input type="checkbox"/> power assisted <input checked="" type="checkbox"/> Interdental Aid <u>Floss</u> <input type="checkbox"/> Toothpaste _____ <input type="checkbox"/> Rinse <u>Tooth Care</u>	Patient Education: <input type="checkbox"/> TB manual <input type="checkbox"/> power assisted <input type="checkbox"/> Interdental Aid _____ <input type="checkbox"/> Toothpaste _____ <input type="checkbox"/> Rinse _____	Patient Education: <input type="checkbox"/> TB manual <input type="checkbox"/> power assisted <input type="checkbox"/> Interdental Aid _____ <input type="checkbox"/> Toothpaste _____ <input type="checkbox"/> Rinse _____
Radiographs: Digital <input type="checkbox"/> FMS <input type="checkbox"/> BWS (V/H) <input type="checkbox"/> Pan	Radiographs: Digital <input type="checkbox"/> FMS <input type="checkbox"/> BWS (V/H) <input type="checkbox"/> Pan	Radiographs: Digital <input type="checkbox"/> FMS <input type="checkbox"/> BWS (V/H) <input type="checkbox"/> Pan	Radiographs: Digital <input type="checkbox"/> FMS <input type="checkbox"/> BWS (V/H) <input type="checkbox"/> Pan
Debridement: <input checked="" type="checkbox"/> Quadrant(s) <u>1 (1-3)</u> <input type="checkbox"/> Whole Mouth _____	Debridement: <input checked="" type="checkbox"/> Quadrant(s) <u>2, 3 (1+2)</u> <input type="checkbox"/> Whole Mouth _____	Debridement: <input type="checkbox"/> Quadrant(s) <u>3, 4</u> <input type="checkbox"/> Whole Mouth _____	Debridement: <input type="checkbox"/> Quadrant(s) _____ <input type="checkbox"/> Whole Mouth _____
Pain Management: <input checked="" type="checkbox"/> Topical <input type="checkbox"/> Oraqix <input type="checkbox"/> Local Anesthesia	Pain Management: <input checked="" type="checkbox"/> Topical <input type="checkbox"/> Oraqix <input type="checkbox"/> Local Anesthesia	Pain Management: <input type="checkbox"/> Topical <input type="checkbox"/> Oraqix <input type="checkbox"/> Local Anesthesia	Pain Management: <input type="checkbox"/> Topical <input type="checkbox"/> Oraqix <input type="checkbox"/> Local Anesthesia
Coronal Polish: <input type="checkbox"/> Engine <input type="checkbox"/> Air Polisher: Agent _____	Coronal Polish: <input type="checkbox"/> Engine <input type="checkbox"/> Air Polisher: Agent _____	Coronal Polish: <input type="checkbox"/> Engine <input type="checkbox"/> Air Polisher: Agent _____	Coronal Polish: <input type="checkbox"/> Engine <input type="checkbox"/> Air Polisher: Agent _____
Other: <input type="checkbox"/> Topical Fluoride: _____ <input type="checkbox"/> Arestin: _____ <input type="checkbox"/> Sealant(s): _____ <input type="checkbox"/> Impressions _____	Other: <input type="checkbox"/> Topical Fluoride: _____ <input type="checkbox"/> Arestin: _____ <input type="checkbox"/> Sealant(s): _____ <input type="checkbox"/> Impressions _____	Other: <input type="checkbox"/> Topical Fluoride: _____ <input type="checkbox"/> Arestin: _____ <input type="checkbox"/> Sealant(s): _____ <input type="checkbox"/> Impressions _____	Other: <input type="checkbox"/> Topical Fluoride: _____ <input type="checkbox"/> Arestin: _____ <input type="checkbox"/> Sealants: _____ <input type="checkbox"/> Impressions _____

The findings of my examinations were explained to me and I authorize my student dental hygienist to perform the procedures delineated in the treatment recommendations above and I understand that modifications to care and photographs may be required based on my individual needs. A thorough discussion with my student hygienist and/or clinical faculty supervisor, the nature, purpose, timing and cost of these procedures, available treatment alternatives, and the advantages and disadvantages of each, including no treatment, was discussed. I understand that additional treatment and/or referrals may be deemed appropriate in order to treat my oral condition. I understand that the dental hygiene clinic has the right to discontinue treatment and deny appointment scheduling after (2) missed appointments with in the academic semester. In this event, I will be provided with a list of regional hospitals, clinics or continuation of care. I have read and understand the above statement, and all my questions concerning my treatment have been satisfactorily answered.

Implementation-Treatment-include all visits

*V1:OHI. Patient education: TB modified bass method. Disclosed. Scaled teeth 1-3 with hand instruments and ultrasonic. 20% Benzocaine used for pain management.

*V2:Exposed FMS. OHI.Patient education: Flossing. Disclosed. Re-evaluated teeth 1-3, continued scaling quadrant 1, and scaled quadrant 2. 20% Benzocaine for pain management.

*V3:OHI. Patient education: Rinses (Listerine Total Care). Disclosed. Re-evaluated quadrants 1 and 2. Rescaled teeth 2DL,14DL,and 15DL. Scaled some of quadrants 3 and 4 but patient became too sensitive. Ultrasonic and hand instruments used.

Implementation-treatment

- V4.OHI.Patient education: Toothpaste (Sensodyne).Re-evaluated quadrants 1 and 2. Re-scaled teeth #2DM,4M,5D,13D,14M,15DM,16M. 20% Benzocaine used for pain management. Dr. Bowers administered 1 carpule of 3% Carbocaine via block for LL quadrant.
- V5. OHI. Patient education on Toothpaste (Sensodyne rapid release).Re-evaluated quadrant 3. Re-scaled teeth #2DM, 19M,20D,21D,23M. Dr. Noel administered 1 carpule of 3% Carbocaine. Used 20% Benzocaine at injection site. Professor Taranto administered local on 2B,19-21 and 23. Oraquix 2.5% Lidocaine and 2.5% Prilocaine used on rescaled teeth. Patient placed on 3 month recall.

Evaluation of Care-Outcome of care-Prognosis

- Patient says she has tried the Sensodyne tooth paste but was not consistent with its use. I educated her before that it must be used for at least 2 weeks before she will feel the difference. Educated her on another Sensodyne toothpaste: Rapid relief (claims to offer relief in 3 days).
- Patient did see a drop in plaque score after implementing modified bass TB method on 2nd visit.
- Patient was generally happy when calculus between teeth was removed and said it encourages her to take care of her teeth and will see a dentist after she graduates in 2020.

Referrals

Wendy 1-1000

The patient is being referred to you for consultation and treatment in the following areas:

- Caries: 13D
- Restorative Care: _____
- Oral Pathology: Pap on 24 - - - - -
- Oral Surgery: _____
- Periodontal Disease: moderate bone loss on mandibular teeth
- Elevated Blood Pressure: 1st reading: _____ 2nd reading: _____
- Other: _____

Thank you,
Dental Hygiene Practitioner: Leahy Grant Bell
Attending Faculty: Wendy Grant Bell

I, (the patient), have been informed of the clinical findings and recommendations. I understand that failure to comply with clinical recommendations may result in permanent, irreversible long-term damage in the areas indicated. I further understand that failure to comply with recommendations may result in discontinuation of treatment at the dental hygiene clinic.

Patient Signature: [Signature]

SNK/MAR/1-FC
Fall 2017

Referral: Caries 13D, Periodontal Disease for bone loss in mandibular arch. Oral pathology for Pap on 24 And tooth 25. Oral pathology was later dismissed by Dr. Bendali.

Continued Care Recommendations

- Patient was put on a 3 month re-care due to her perio type 2 status, plaque accumulation and teeth sensitivity. With 3 month re-care we will be able to monitor her care more closely and help the patient continue to keep her plaque formation down, reduce her caries risk, and pocket depths.

Final Reflection

- Ms. P was my most difficult patient in terms of pain and management. The pain slowed our progression down a bit and made me uncomfortable with probing and exploration. I didn't want to hurt her. What went wrong was that I should have looked at older notes from when she was first a patient here. The old notes indicated that she had used blocks before. She never told me when we met and I didn't ask. When scaling quadrants 1 and 2, she indicated very little about being uncomfortable. When I got to quadrant 3 I started to notice her squirming, and noises of pain. So I moved ahead to quadrant 4. She then told me she had been given a shot in her mouth in the past. It was the mandibular anterior that gave her the most pain. She had asked me to start cleaning there first but I started in quadrant 1 and then went to quadrant 2. I should have gone from quadrant 1 to quadrant 3 instead because the last two visits were for quadrants 3 and 4. Had I done it differently we could have possibly been finished with one less visit. I did not remember that the blocks could not both be on the maxilla or mandibular. Had I thought about the sensitivity to air in her mandibular anterior I also could have anticipated needing a block in that area. This was still towards the start of the semester and I didn't refresh myself or remind myself about some of the cases from last semester. She was interested in the health of her teeth but said with school and her job not providing insurance she just couldn't afford the care or have time for it. After graduation she said she would have the kind of job that would allow her a better schedule and finances. It's something she has been wanting to do for a long time. I was surprised that she went out and bought the toothpaste that I suggested for her sensitivity but wasn't surprised that she expected instant results even though I told her it needed time to work. She had +1 mobility and we talked about possible loss of tooth but her main concern was to remove the plaque especially from her anterior teeth. After several visits we were able to get it all done and the blocks saved me and taught me to pick up on cues either said by the patient verbally or with body language.