

**New York City College of Technology
Department of Dental Hygiene
Case Presentation**

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Patient Profile

- Patient is a 24 year old Middle eastern male.
- His last dental exam and dental cleaning was in April 2018. 4 BTW were exposed at that time.

Oral Hygiene Routine:

- Brushes twice a day with manual toothbrush back and forward method.
- Does not use any interdental aids.
- Does not use any oral rinse.

Chief Complaints

- Patient states “I’m here for a cleaning and check up.”

Health History Overview

- Blood Pressure: 133/88, Pulse: 64, ASA: II

Health Conditions:

- Patient presents with Type 1 diabetes.
- He is under care of physician for DM.
- His last HbA1c was checked in January and it was 7%.
- His blood sugar in the morning was 118.
- Patient ate before coming to the appointment.

Current Medications:

- Admelog Solastar 100 units/ml 6 times a day- For diabetes.
- Vitamin D, as needed.

Diabetes

- Is a metabolic disease in which the body's inability to produce any or enough insulin causes elevated levels of glucose in the blood.
- **Types of diabetes:**
 - ✓ Type 1
 - ✓ Type 2
 - ✓ Gestational diabetes
 - ✓ Prediabetes

Type 1 Diabetes

- Usually diagnosed in children and young adults
- When body's own immune system destroys the insulin producing cells of the pancreas – beta cells – which produce insulin
- Only 5% of people have this disease
- Body does not produce insulin
- Is not preventable
 - No primary intervention
- **What are the causes?**
 - Predisposition to diabetes
 - genetics

Type 2 Diabetes

- Most common form of diabetes, about 90% of cases
- Non insulin dependent diabetes
- Body produces insulin, but does not use it properly
 - glucose doesn't move into cells, they pile up in the bloodstream

Symptoms of Diabetes:

- Blurred vision
- Headache
- Muscle weakness
- Slow wound healing
- Itchy skin.
- Acute complications include diabetic ketoacidosis and high osmotic hyperglycemia.

How Diabetes is Managed?

- **Diabetes is managed with medication, nutrition, physical activity and glucose monitoring, but there is NO cure.**
- When the body doesn't produce insulin, it must be obtained from another source.
- All people with type 1 diabetes must take insulin by injection to live.
- Many people with type 2 diabetes take glucose-lowering medications which can be taken orally or by injection. Many youth with type 2 diabetes take insulin, often in addition to other glucose lowering medications.

Dental Hygiene Management Diabetes

References:

Diabetes. (2020, October 30). Retrieved April 03, 2021, from <https://www.mayoclinic.org/diseases-conditions/diabetes/symptoms-causes/syc-20371444>

Contraindications to dental hygiene care?

- It is contraindicated to treat uncontrolled Diabetes patient, for example when the patient rush to clinic without eating proper meal, as a result of hypoglycemia.

Management strategies:

- Hypoglycemia is one of the complication during dental treatment: ask patient to eat before dental appointment. Therefore, have candy bar ready in clinic in case patient need it.
- Ask patient if patient take diabetes medications on schedule, and confirm dose, type of insulin with patient as well.
- Patient with Diabetes might experience weaker immunity response to pathogen. Therefore, try to minimize induce bacteremia while probing and have patient rinse.



**COMPREHENSIVE
ASSESSMENTS**



Radiographs

Caries: Interproximal decay noted on #14D, #14M and #13D

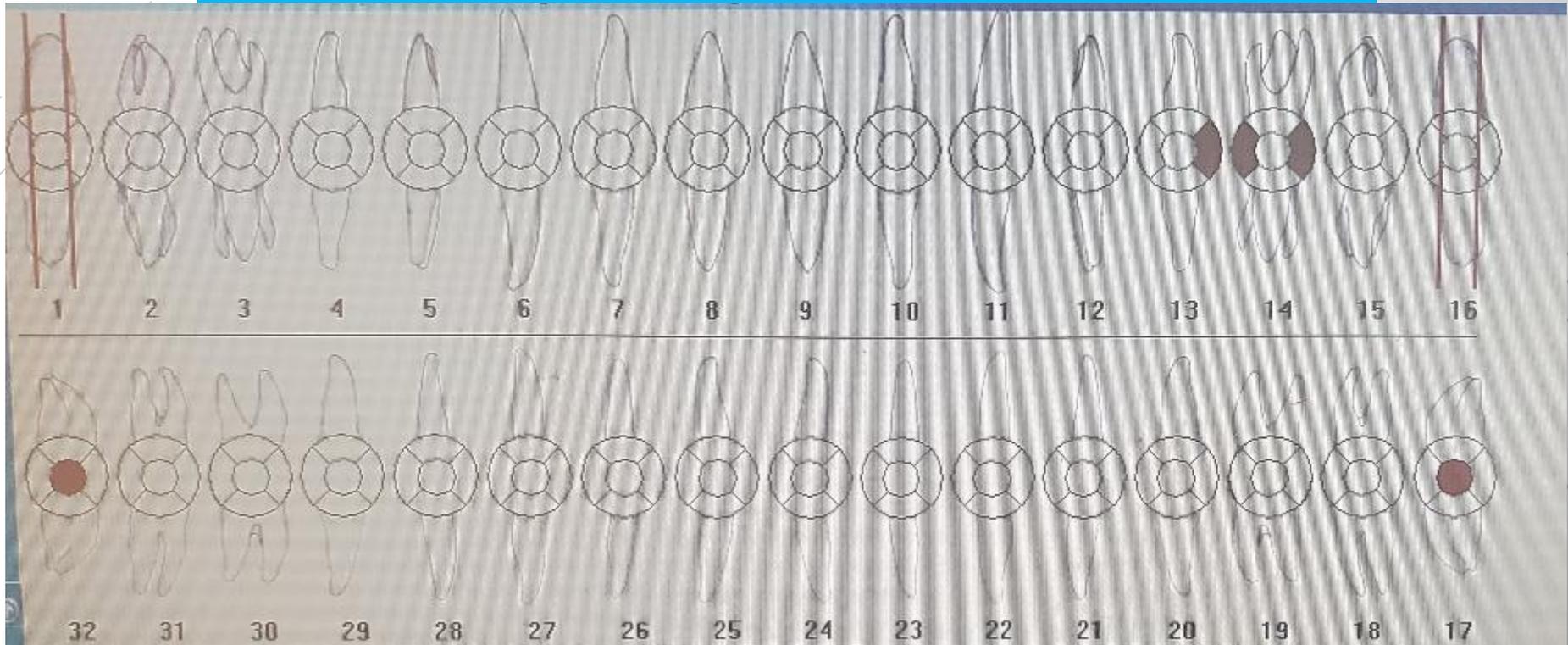
Calculus: Calculus present on tooth #12M and 31D.

Crest of Bone: No bone loss except 5% on mesial tooth #12.

Clinical Findings

- **E/O:** No significant findings, WNL.
- **I/O:** cheek biting, lips biter, dry lips. Patient has coated tongue, fissured tongue on dorsal surface. Narrow upper arch of palate. Slightly short lingual frenum.
- **Occlusion:** Class 1 (Molar relationship)
- **Overjet:** 2mm
- **Overbite:** 20%
- **Attrition:** No attrition noted.
- **Deposit:** Generalized soft plaque. Medium Calculus noted on mandibular anteriors as well mandibular molars.
- No mobility.

Dental Charting



- Tooth #1 and #16 are partially erupted.
- Caries on tooth #13D, #14MD, #17O and #32O

Gingival Description & Periodontal Status

Gingival Description:

Pale pink gingiva, bulbous papillae, soft generalized gingival inflammation. BOP.

Periodontal Status:

Generalized probing depths of 3-5 mm, with several 6mm PD.

Mild Generalized recession 1-2mm

Present on facial and lingual on mandibular anterioros, gingival cleft noted on facial of premolars.

Dental Hygiene Diagnosis

Periodontal Status:

Medium, Gingivitis.

Generalized probing depths of 3-5 mm, with several 6mm PD.

Mild Generalized recession 1-2mm Present on facial and lingual on mandibular anterioros, gingival cleft noted on facial of premolars.

Dental Hygiene Care Plan

Visit one:

- Review medical Hx, explain Tx plan and obtain consent,
- OHI: Modified Bass Toothbrush Technique.
- Scale LR quadrant. Using hand instruments.

Visit two:

- Evaluate LR quadrant.
- Expose Radiographs (BTW).
- OHI: flossing and soft picks .
- Scale UR, UL/LL quadrants using instruments.
- Placing sealants on tooth #31 (with rubber dam) and #19 (with dry angle/cotton rolls).
- Engine polish and apply 5% sodium fluoride varnish.

EVALUATION OF CARE – OUTCOME OF CARE - PROGNOSIS

- Although I was unable to see the gingiva completely heal, after the first visit it was a decrease of gingival inflammation.
- The patient was also quite compliant with home care; he really loved the modified Bass method and the flossing.

REFERRALS

Referral was given for dental evaluation for suspicious caries on tooth #14D, #14M, 13D).

FINAL REFLECTION

Overall, I think I have done a good job in understanding the patient's medical history and developing a treatment plan according. In addition to that, I also took time in explaining the treatment plan and care instructions post treatment. I believe this was more of a learning experience for me and I can do a better job at it with my future patients.