

Case Report: Mitch
Amy Coplen, RDH

S-Subjective Phase

Chief Complaint

I have pain on an upper back tooth.

History of the Chief Complaint

Mitch reports receding gums and sensitivity to hot and cold food and liquids.

Medical History

Mitch doesn't take any prescription drugs. He only takes an occasional ibuprofen for aches and pains. His Medical history shows he is taking Sudafed, but doesn't give an explanation why. It could be due to a cold or sinus infection.

Dental History

Mitch's last dental visit was 5 years ago. He currently has pain in an upper back tooth that is sensitive when he eats or drinks hot and cold things. He reports having a cracked tooth about 10 years ago that broke. He also had orthodontic treatment and extractions as a child. Mitch is satisfied with the appearance of his teeth. Mitch uses fluoride toothpaste but is on well water and doesn't know if there is any fluoride in it. Mitch is only interested in taking care of his sensitive tooth. He doesn't desire any other dental care at this time.

Family History

Mitch's mother has autosomal recessive muscular dystrophy which her sister also has. Common in the Cajun population. Dentally, his mother had bad teeth when she was young leading to several extractions due to poverty upbringing. She now wears partials.

Clinical Findings

Oral examination showed several class I small amalgam fillings in the maxillary and mandibular molars. He also has generalized 1-3 mm recession, most severe in the maxillary molars. Radiographs and clinical photos show no caries, healthy bone levels and low biofilm. Mitch is at low caries risk.

Differential Diagnosis

1. Dentin hypersensitivity

Dentinal hypersensitivity is a painful response to a non-noxious stimulus applied to exposed dentine in the oral environment. Dentine exposure results from a combination of two or more etiological factors that lead to loss of enamel and/or loss of cementum. The hydrodynamic theory is the most accepted theory that explains the excitement of pulpal nerve fibers by a stimulus applied to the exposed dentine. Dentinal hypersensitivity had been reported to affect middle age people most often with no gender differences and has been shown to be influenced by tooth location.[1] Ginival recession has been shown to have a correlation to past orthodontic treatment. Mitch's recession may date back to when he had braces.[2]

2. Chronic sinusitis

If a patient's maxillary molar roots are close to the maxillary sinus, sometimes a sinus infection can mimic a tooth ache. Mitch reported taking Sudafed in his

medical history which could be a sign that he has been dealing with a sinus problem. More information is needed to rule out sinusitis as to how long he has had the sensitivity and why he is taking the Sudafed. However, the fact that he is only sensitive to hot and cold and not all the time, leads you away from this diagnosis.

3. Cracked Tooth Syndrome

Common symptoms of a cracked tooth are cold sensitivity and pain on biting. Mitch reports hot and cold sensitivity but no pain when he bites. However, ten years ago, he had a cracked tooth that broke. Therefore a cracked tooth should be on the differential diagnosis list. More tests should be done to rule out a cracked tooth like an occlusal bite device and pulp testing.

Discussion

The most likely diagnosis of Mitch's condition is dentinal hypersensitivity or sinusitis. The classic sign of this is hot and cold sensitivity. Mitch has generalized recession, but has no evidence of caries.

P-Treatment Plan

Management

Application of a fluoride varnish would be indicated or some type of dentin sensitivity product. Gel-kam would also be a possible treatment. The patient should consider getting on a regular 6 month recall. He should be cautioned not to use whitening tooth pastes because they can make the sensitivity worse. He can also try several over the counter treatments for sensitive teeth, such as gel-kam found by asking the pharmacist, sensitivity tooth paste or fluoride rinse. If the pain doesn't significantly reduce in the next few weeks, he should return to the office for further evaluation.

Resources

Shutzkey, S., Levin, L. Gingival recession in young adults: Occurrence, severity, and relationship to past orthodontic treatment and oral piercing. American Journal of Orthodontics and Dentofacial Orthopedics , Volume 134 , Issue 5, Pages 652 – 656.

HYPERLINK "http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=Search&Term=%22Al-Sabbagh%20M%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_RVAbstractPlus" Al-Sabbagh, M., HYPERLINK "http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=Search&Term=%22Andreana%20S%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_RVAbstractPlus" Andreana, S., HYPERLINK "http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=Search&Term=%22Ciancio%20SG%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_RVAbstractPlus" Ciancio, S.G. Dentinal hypersensitivity: review of aetiology, differential diagnosis, prevalence, and

mechanism. Journal of International Academy of Periodontology. 2004 Jan;6(1): 8-12.