

MANAGEMENT OF  
AN ENDO-PERIO  
LESION:  
SYSTEMATIC  
MULTIDISCIPLINARY  
APPROACH

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# CASE HISTORY

- Age/Sex: 66yo Male
- CC: Patient wanted to get his Root Canal Completed on #18
- HPI: Patient was referred to the school for getting a RCT, he had pain upon biting and chewing for 1-2 months. Incision and drainage performed by his previous dentist. The tooth was accessed by my big sib, 5 months ago and treatment had stopped due to the pandemic.
- MED HX: Patient denies any medical conditions.
- MEDICATION: Patient denies taking any medication.
- ALLERGIES: No known drug allergies

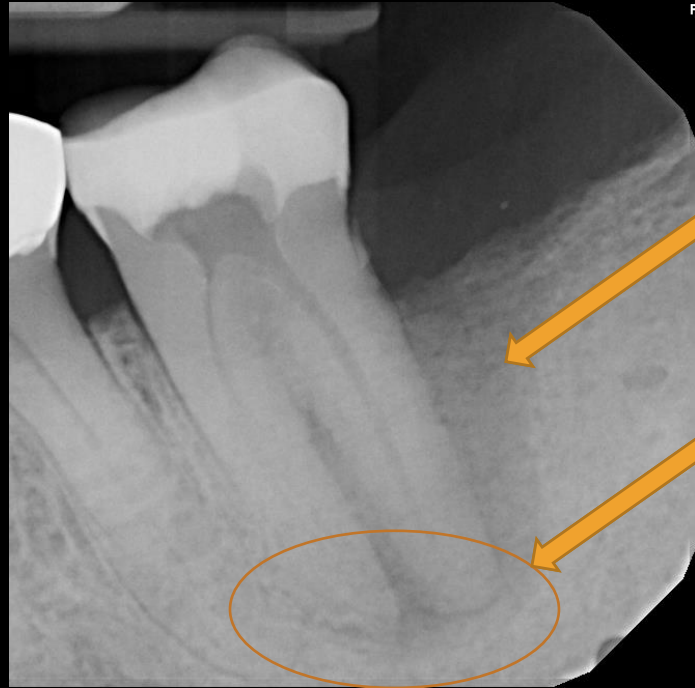
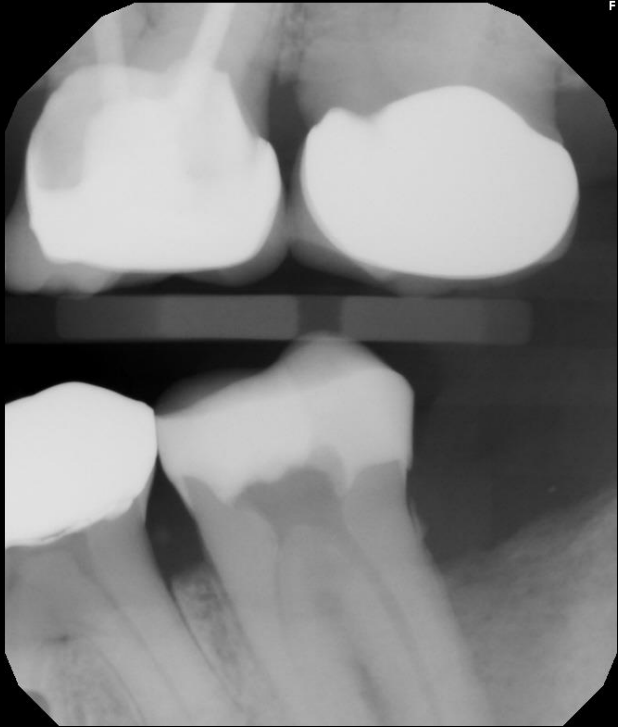
# CLINICAL FINDINGS

## DIAGNOSTIC TESTS:

TEST	#18	#19	#31	#14 (ENDO TREATED)
Cold	<b>0 - No Response</b>	WNL	WNL	0 – No Response
Percussion	<b>++</b>	WNL	WNL	WNL
Palpation	<b>++</b>	WNL	WNL	WNL
Perio-Probing	B: 3,4, <b>12</b> L: 3,4, <b>6</b>	B:3,3,3 L:3,3,3	B:4,3,3 L:3,3,3	B: 3,3,4 L: 3,3,3

- HARD TISSUE FINDINGS:  
Large Composite Restoration
- SOFT TISSUE FINDING:  
Draining Sinus Tract Distal #18 on the ridge

# RADIOGRAPHIC FINDINGS



- VERTICAL BONELOSS
- PERIAPICAL RADIOLUCENCY

# DIAGNOSIS AND PROGNOSIS

## DIAGNOSIS:

- PULPAL DIAGNOSIS: **Previously Initiated Therapy #18.**
- PERIAPICAL DIAGNOSIS: **Chronic Apical Abscess (Sinus Tract) #18.**

## PROGNOSIS:

- ENDODONTIC: Favorable
- PERIODONTAL: **Poor to Guarded**

Singh P. Endo-perio dilemma: a brief review. *Dent Res J (Isfahan)*. 2011;8(1):39-47.

Jivoinovici R, Suci I, Dimitriu B, et al. Endo-periodontal lesion--endodontic approach [published correction appears in *J Med Life*. 2014 Oct-Dec;7(4):627]. *J Med Life*. 2014;7(4):542-544.

# MULTIDISCIPLINARY APPROACH

ENDODONTICS

PERIODONTICS

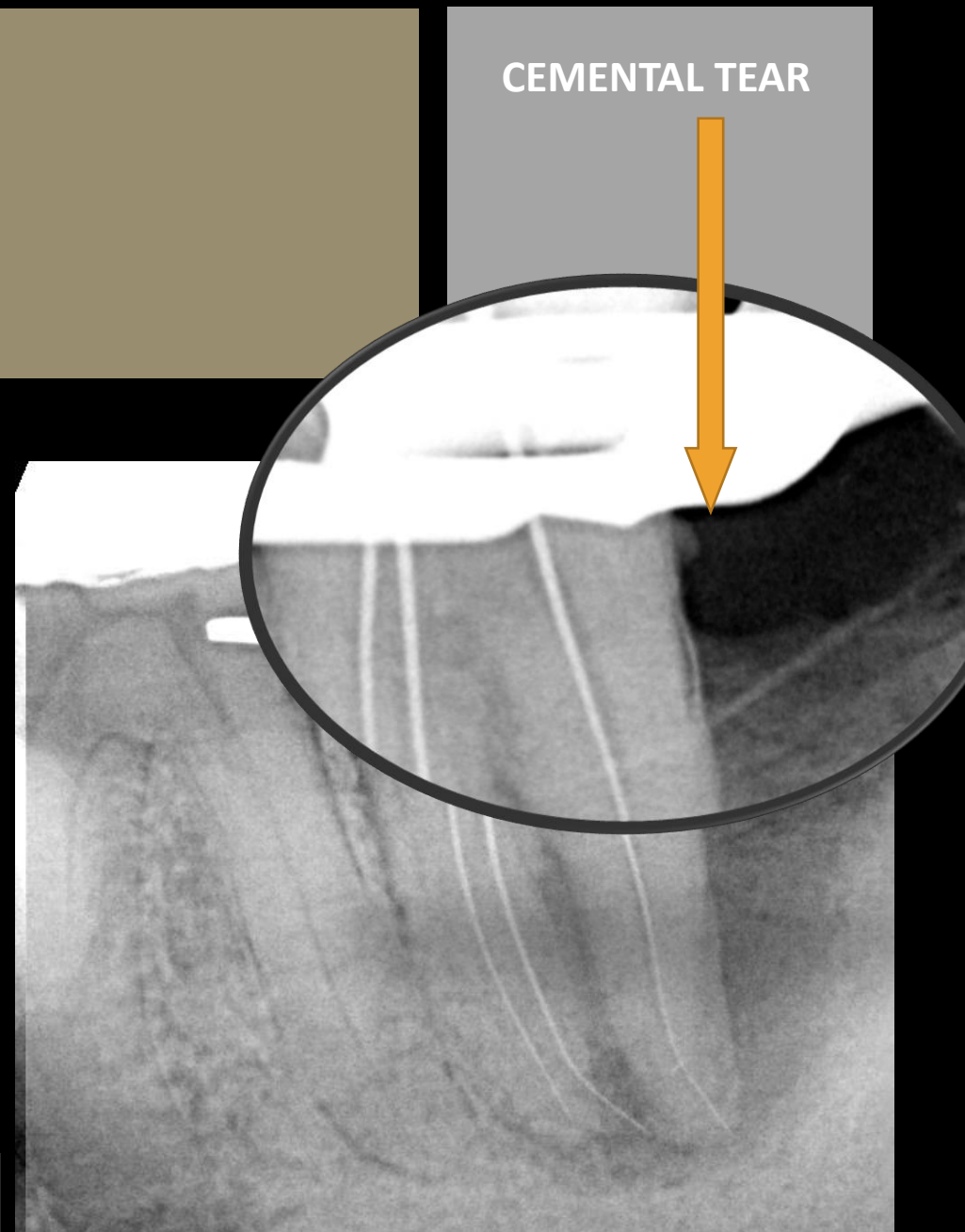
RESTORATIVE

# CLEANING AND SHAPING

- Working Length
- MB: 21.5mm MB cusp tip, Final File Red Waveone 25/.07
- ML: 20.5mm ML cusp tip, Final File Red Waveone 25/.07
- D: 21mm DL cusp tip, Final File Red Waveone 25/.07

Incidental Finding: **CEMENTAL TEAR**

**Calcium Hydroxide** was placed In all the Canals:



# OBTURATION



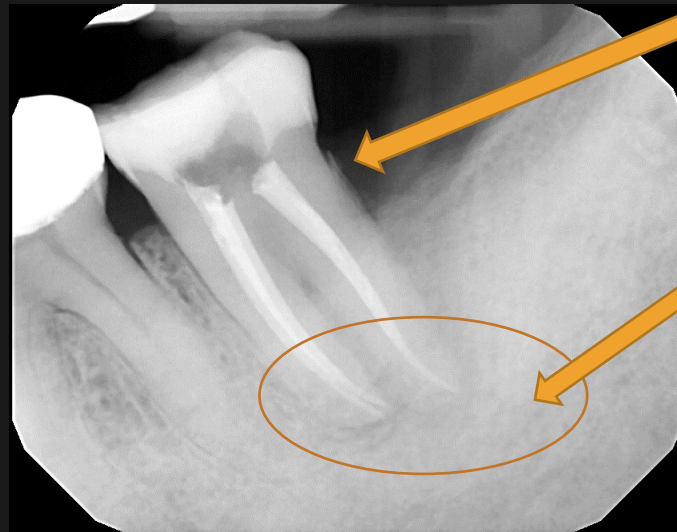
- 2 weeks Post Cleaning and Shaping
- The **draining sinus tract had resolved**: It was decided to continue with the obturation.
- Master Cones and Obturation: Completed using Cold Lateral Condensation Technique



# 2 MONTH FOLLOW UP



AFTER OBTURATION



2 MONTH FOLLOW UP

- CEMENTAL TEAR
- EVIDENCE OF PERI-APICAL HEALING AT THE APEX

# PERIODONTAL SURGERY



OBTURATION



1 MONTH POST PERIODONTAL SURGERY

Flap Debridement  
with Scaling and Root  
planning #18,#19,#20  
under local anesthesia



No Cemental Tear

Jeng PY, Luzi AL, Pitarch RM, Chang MC, Wu YH, Jeng JH. Cemental tear:  
To know what we have neglected in dental practice. *J Formos Med Assoc.*  
2018;117(4):261-267. doi:10.1016/j.jfma.2017.09.001



OBTURATION

9 MONTH FOLLOW UP

## 9 MONTH FOLLOW UP

- The tooth is completely asymptomatic, no tenderness to percussion or palpation, not sensitive to cold.
- Periodontal Pockets are now **3,3,3** and **3,3,3**.



# CONCLUSION

- Initially it was assumed to be a primary endo secondary perio lesion. On discovering the cemental tear, the prognosis of the tooth was deemed to be poor. However, with a systematic multidisciplinary approach to address all the etiologically FACTORS by carefully evaluating the tooth and the lesion at each step, achieving proper disinfection and elimination of the pockets, the prognosis of the tooth improved, and was able to restore the health and function to a tooth with a severe attachment loss due to a endo-perio lesion.

Grudianov AI, Makeeva MK, Piatgorskaia NV. *Vestn Ross Akad Med Nauk*. 2013;(8):34-36

Tseng CC, Harn WM, Chen YH, Huang CC, Yuan K, Huang PH. A new approach to the treatment of true-combined endodontic-periodontic lesions by the guided tissue regeneration technique. *J Endod*. 1996;22(12):693-696. doi:10.1016/S0099-2399(96)80067-7

# REFERENCES:

- Singh P. Endo-perio dilemma: a brief review. *Dent Res J (Isfahan)*. 2011;8(1):39-47.
- Jivoinovici R, Suci I, Dimitriu B, et al. Endo-periodontal lesion--endodontic approach [published correction appears in *J Med Life*. 2014 Oct-Dec;7(4):627]. *J Med Life*. 2014;7(4):542-544.
- Pereira R, Arboleda S. A Multidisciplinary Approach of an Endo-Perio Lesion in a Severely Compromised Tooth: An 18-Year Follow-up Case Report. *J Med Life*. 2020;13(4):629-634. doi:10.25122/jml-2020-0017
- Lin HJ, Chan CP, Yang CY, et al. Cemental tear: clinical characteristics and its predisposing factors. *J Endod*. 2011;37(5):611-618. doi:10.1016/j.joen.2011.02.017
- Sharma G, Ahmed HMA, Zilm PS, Rossi-Fedele G. Antimicrobial properties of calcium hydroxide dressing when used for long-term application: A systematic review. *Aust Endod J*. 2018;44(1):60-65. doi:10.1111/aej.12216
- Jeng PY, Luzi AL, Pitarch RM, Chang MC, Wu YH, Jeng JH. Cemental tear: To know what we have neglected in dental practice. *J Formos Med Assoc*. 2018;117(4):261-267. doi:10.1016/j.jfma.2017.09.001
- Grudianov AI, Makeeva MK, Piatgorskaia NV. *Vestn Ross Akad Med Nauk*. 2013;(8):34-36





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PREOP



POSTOP



2 MONTH  
FOLLOW UP



6 MONTH  
FOLLOW UP



9 MONTH  
FOLLOW UP

THANK YOU !!!