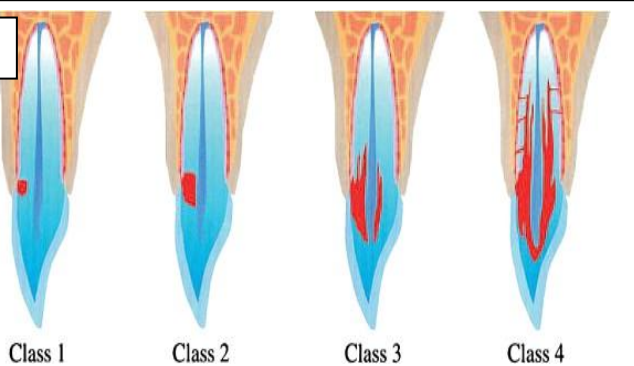


# INVASIVE CERVICAL RESORPTION

## A Case Report

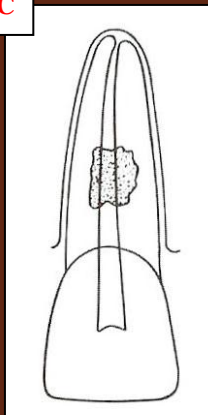
A



B



C



External cervical resorption (ECR) is a form of external resorption that occurs immediately below the epithelial attachment of the tooth at the cervical region & hence the name. Heithersay termed it 'Invasive Cervical Resorption' due to its aggressive & invasive nature.

### Heithersay Classification of ICR:

Heithersay classified ECR according to the extent of the lesion within the tooth (Fig.1 A):

**Class 1:** A small invasive resorptive lesion near the cervical area with shallow penetration into dentin;

**Class 2:** A well-defined invasive resorptive lesion that has penetrated close to the coronal pulp chamber but shows little or no extension into radicular dentin;

**Class 3:** A deeper invasion of dentin by resorbing tissue, not only involving the coronal dentin but also extending at least to the coronal third of the root.;

**Class 4:** A large invasive resorptive process that has extended beyond the coronal third of the root canal.

**While classes 1-3 are treatable, Class IV defects in general needs extraction due to poor prognosis**

Even though the exact etiology is unknown, it is thought that the damage to or deficiency of cementum layer below the epithelial attachment exposes the root surface to osteoclasts, which then resorb the dentin.

**It is important to understand that the pulp tissue plays no role in the etiology of ECR. RCT is not required unless the external resorption defect invades the pulp.**

### Predisposing factors

- Orthodontics
- Trauma
- Intracoronary bleaching
- Surgical procedures
- Periodontal therapy
- Other factors: bruxism, intracoronary restorations, developmental defects, systemic diseases

## CASE REPORT

A 76 year old male was referred to our office for resorption defect in tooth # 27. He complained of pain for the past 3 weeks. Pain was described as sharp, radiating, momentary and shooting but not lingering. He was neither sensitive to cold nor to hot. The pain was increased by touching the gum area. General health wise, patient takes medications for hypertension & acid reflux.

#27 responded within normal limits to cold. It was percussion negative but the tender of palpation especially on the coronal third. The coronal gingival margin was edematous & bled on probing. I was able to probe the resorption cavity with the explorer.

## Common Clinical and Radiographic Signs

### Clinical signs

- ❖ Located in cervical region of tooth
- ❖ Pink spot might be noted by patient/dentist
- ❖ Tooth usually responds positively to vitality tests unless there is pulpal involvement (in very advanced cases)
- ❖ Spontaneous and profuse bleeding on probing
- ❖ Sharp, thinned out edges around the resorptive cavity

### Radiologic signs

- ❖ Detected as chance radiologic finding because tooth is usually asymptomatic
- ❖ Varies from asymmetrically located radiolucency with irregular margins in cervical/proximal region of tooth to uniformly round radiolucency centered over the root
- ❖ Early lesions are usually radiolucent in appearance
- ❖ Advanced lesions might have mottled appearance because of fibro-osseous nature of the lesion
- ❖ Root canal should be visible and intact (indicating lesion is external)

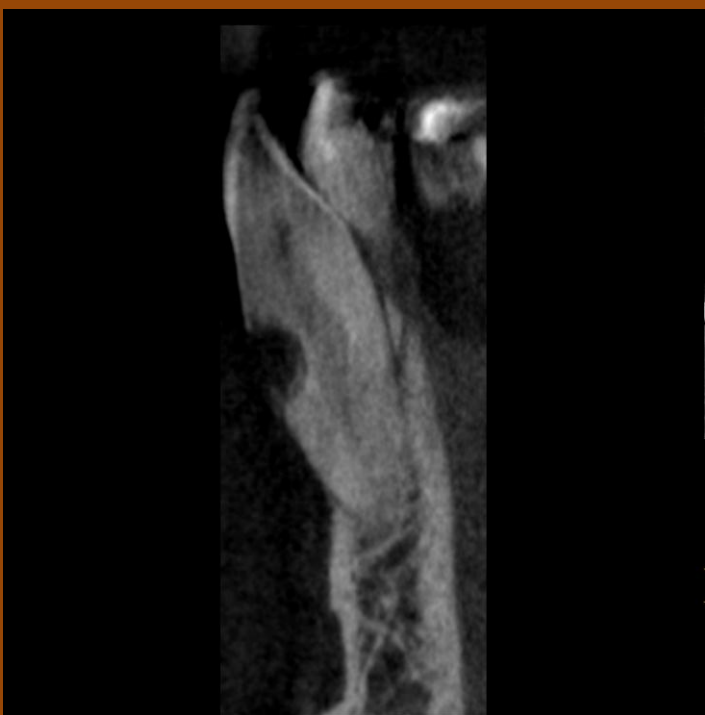


Fig. 3: CBCT showing the extent of resorption defect.



Fig.2: Pre-Op x-ray. Note the root canal outline within the defect indicating the resorption is external





Fig. 4: Intra oral picture



Fig. 5: Probing the defect

A full-thickness periosteal flap was raised to allow complete access and removal of the ECR lesion from the root. All the granulomatous tissue from the adjacent periodontium was curetted away to sever the blood supply to the resorbing cells, thereby decreasing the chances of recurrence. It was then treated with Trichloroacetic acid to cause the coagulation necrosis of the resorptive tissue. The root defect was restored with Geristore. Due to large & visible pulpal exposure upon flap retraction, non-surgical RCT was performed on #27.

Post-op healing was uneventful and healed within normal limits.



Fig. 6: Surgical exposure of the defect. Note the pulpal exposure.



Fig. 7: Post Op x-ray



Fig.8: Post Op CBCT view





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