

Dens Evaginatus (DE)

Endodontic procedure on a Leong's Premolar

What is Dens Evaginatus (DE)?

- DE is a rare developmental anomaly resulting from formation of an accessory cusp which projects above the adjacent tooth surface.
- Synonyms: Occlusal enamel pearl, Occlusal tubercle, Leong's Premolar, Talon's cusp (specifically when seen in anterior teeth due to resemblance to an eagle's talon).
- Most commonly seen on lingual surface of anterior teeth (mainly maxillary lateral incisors) & Occlusal surface of mandibular premolars.
- Etiology remains undetermined. Autosomal dominant and X-linked dominant inheritance patterns are seen, Localized trauma, possibly from pressure exerted upon the developing tooth bud has been suggested.
- Most common in people of Asian descent with an incidence of 0.5% to 4.3%
- It's different from cusp of Carabelli in that it has a slender pulp horn extending to various distance along the tubercle's dentinal core (Fig. 1).
- Clinical Significance: Due to protrusion of DE tubercle above the occlusal surface, it can result in malocclusion from premature contact with opposing tooth. Traumatic occlusal forces can further cause abnormal wear or fracture of the tubercle resulting in pulpal exposure leading to endodontic problems.

A 20 year old severely autistic male was referred for consult and treatment of teeth 29 & 30. Parents were concerned about the 'bubble on his gums'.

#30 had deep restoration close to pulp & also had fracture lines on buccal surface. 29 had an occlusal tubercle (Fig.5) & an associated Periapical radiolucency (PARL) (Fig.2). Buccal sinus tract was traced to #29 (Fig. 7 & 3). Vitality tests were inconclusive as the patient was unable to understand instructions & respond appropriately to tests. Cone beam CT (CBCT) was taken to obtain additional information. CBCT clearly showed the extension of pulp horn into the tubercle (Fig.4). No evidence of PARL was seen on #30. RCT on #29 was performed in two visits with Calcium Hydroxide as interim dressing (Fig. 6,8,9, 10). It was decided to just monitor #30 due to lack of sufficient evidence & proper diagnosis.

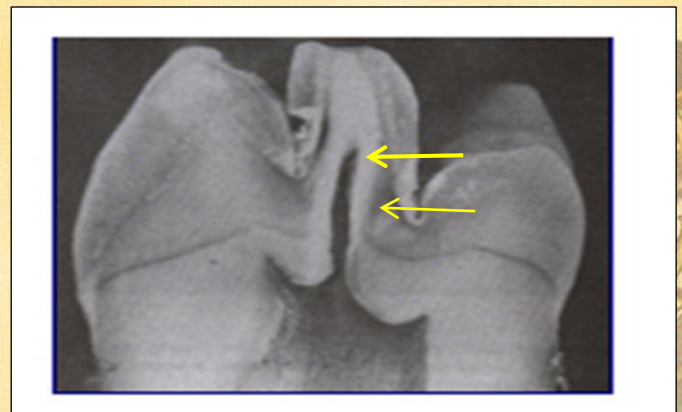


Fig.1: Occlusal tubercle showing enamel, dentin & pulp

For the convenience of our patients, we are now open late evenings & Saturdays!!



Fig.2: Pre-Op PA



Fig.3: Sinus tract tracing

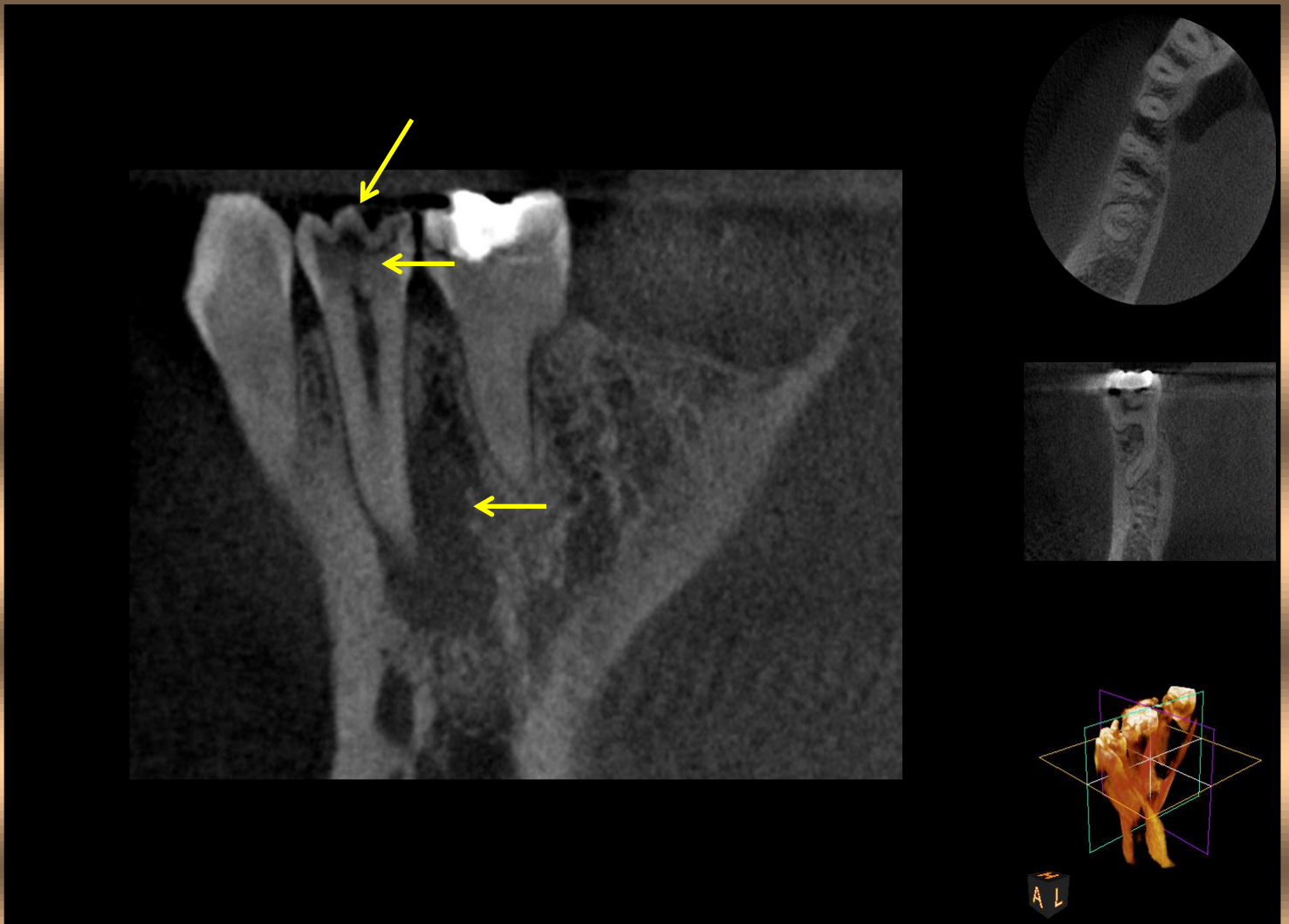


Fig. 4: CBCT showing Periapical Radiolucency in #29. Also note the occlusal extension of pulp horn into the tubercle

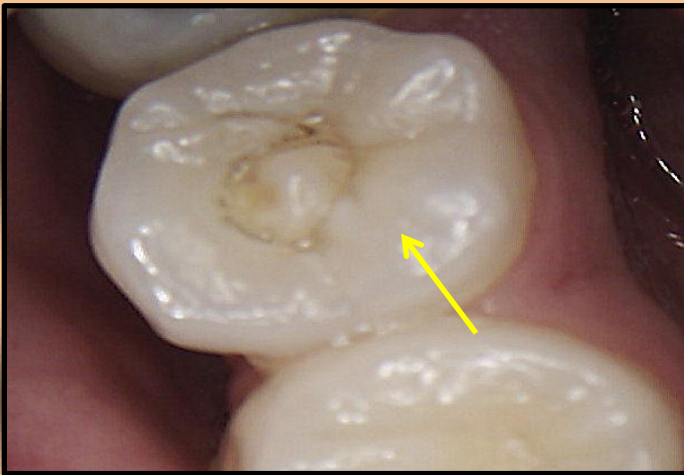


Fig. 5: Leong's Premolar



Fig.6: Access

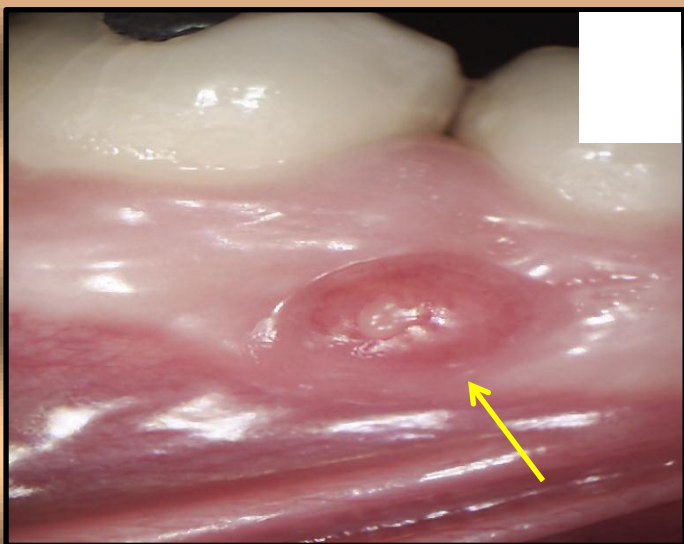


Fig.7: Intra oral sinus tract before treatment

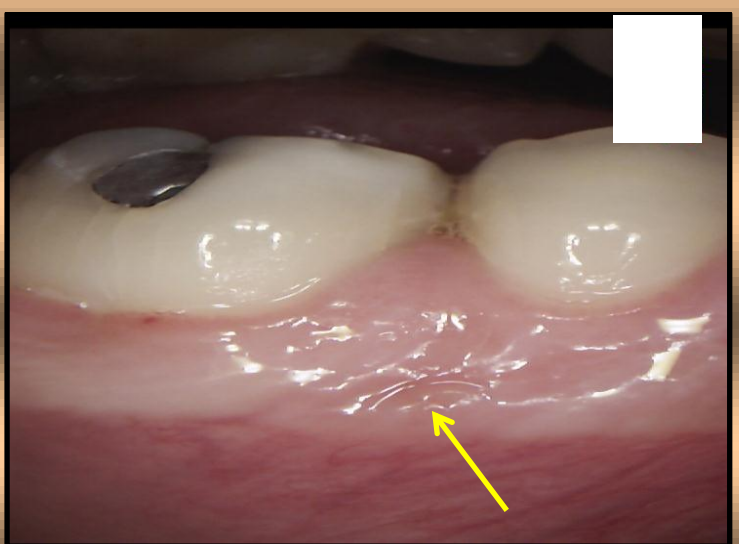


Fig.8: Healed Intra oral sinus tract after Calcium Hydroxide therapy



Fig. 9: PA showing Calcium Hydroxide dressing



Fig.10: Post Op. PA

We are in-network with the following Insurance providers:

- Delta Dental
- Delta Care USA
- Assurant Employee Benefits / DHA
- Ameriplan
- Careington
- Cigna
- Connection Dental
- Aetna HMO & PPO
- Guardian
- Pacific Union Dental (Dental Benefit providers)
- Metlife
- Safeguard HMO
- Ameritas

Our Team.....



- ✓ Committed to provide **finest endodontic treatment.**
- ✓ **Patients always come first.** We strive to provide a positive experience to our patients in a friendly & soothing environment. All our patients are offered the option to select their own music of choice that relaxes them during their treatment.
- ✓ **Late evenings & Saturday appointments** for the convenience of our patients.



GREENROOT
Endodontics & Microsurgery