



Background

- **CULLP** is a congenital anomaly caused by agenesis or hypoplasia of depressor anguli oris muscle or agenesis of marginal mandibular branch of facial nerve.
- Characterized by unilateral lower lip depression during crying or smiling and lip symmetry at rest
- Incidence: 0.6% of newborns; 80% on left-side
- Unknown cause – suspect multifactorial factors such as lack of facial nerve/muscle development (80%), facial nerve compression (20%), intrauterine viral infections, fetal position, or genetic conditions and syndromes
- Associated anomalies: Cardiovascular defects (ASD, VSD); musculoskeletal, renal, gastrointestinal, cervicofacial anomalies, others

Case Report

- **Case:** A healthy, seven-year-old, Caucasian male with persistent unilateral lip asymmetry with parental concerns for “lazy lip” since childhood and monitored by pediatrician.
- **Medical History:** Non-contributory
- **Clinical Features:** Smiling caused asymmetry of lower lip with prominent depression of lower right side and thinner lower left lip appearance; perioral eczema noted.
- **Oral-dental findings:** Incipient, unilateral anterior crossbite (#D-#Q,R); no carious lesions detected
- **Radiographic findings:** Mild taurodontism of permanent first molars and bilateral bifid mandibular canals

Clinical Presentation



Figure 1: Frontal photographs with a consistent smile with lower lip asymmetry and prominent depression of lower right side and thinner lower left lip appearance

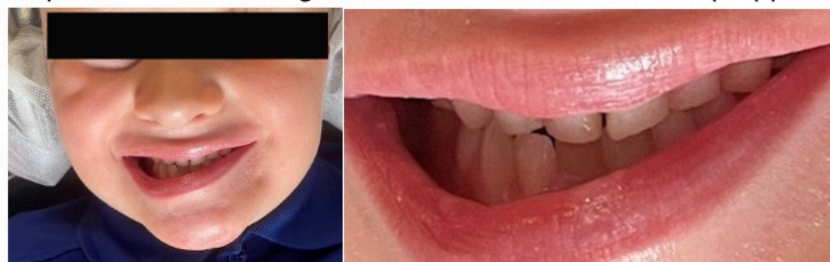


Figure 2: Extraoral and intraoral smiling photograph with lip asymmetry, perioral eczema, and incipient unilateral right-sided crossbite



Figure 3: Panoramic radiograph during early mixed-dentition stage demonstrating bifid mandibular canals and mild taurodontism affecting permanent first molars

Discussion

- CULLP is a rare congenital lip anomaly of unknown pathogenesis.
- CULLP may be associated with DiGeorge, VACTERL, or Cayler cardiofacial syndromes.
- Other causes of facial palsy/asymmetry are facial nerve palsy due to birth trauma (asymmetric crying facies); Bell's palsy from infections (HSV, VZV, COVID, Lyme), trauma, immunologic (Guillain-Barre), and tumors; childhood stroke; and hemifacial microsomia.
- **Diagnostic assessment:** Evaluation should include neurological & systemic evaluation, imaging (ultrasound for facial muscles, anomalies), electrodiagnostic studies for neuromuscular dysfunction, and genetic analysis for syndromes.
- Improvement or resolution in some cases due to compensatory muscle development
- **Treatment:** Botox chemo-denervation of contralateral lip; TENS therapy, surgery for severe cases
- Dental and oral findings have not been previously reported but speech, lip trauma, drooling, and malocclusion are potential problems.

Conclusion

- CULLP is a rare facial anomaly that pediatric dentists may be the first one's to encounter.
- Pediatric dentists need to be aware of the CULLP's association with syndromes and organ anomalies.
- Studies are needed to evaluate the dental and oral problems of CULLP.