



MIMER Medical College & Dr. BSTR Hospital

Importance of Pediatric Dentistry in Child's Health

An Interdisciplinary Perspective

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Importance of milk teeth

Primary teeth are crucial for child's overall development.

- Space maintenance
- Speech development
- Nutrition & digestion
- Jaw development & facial support
- Confidence & well-being

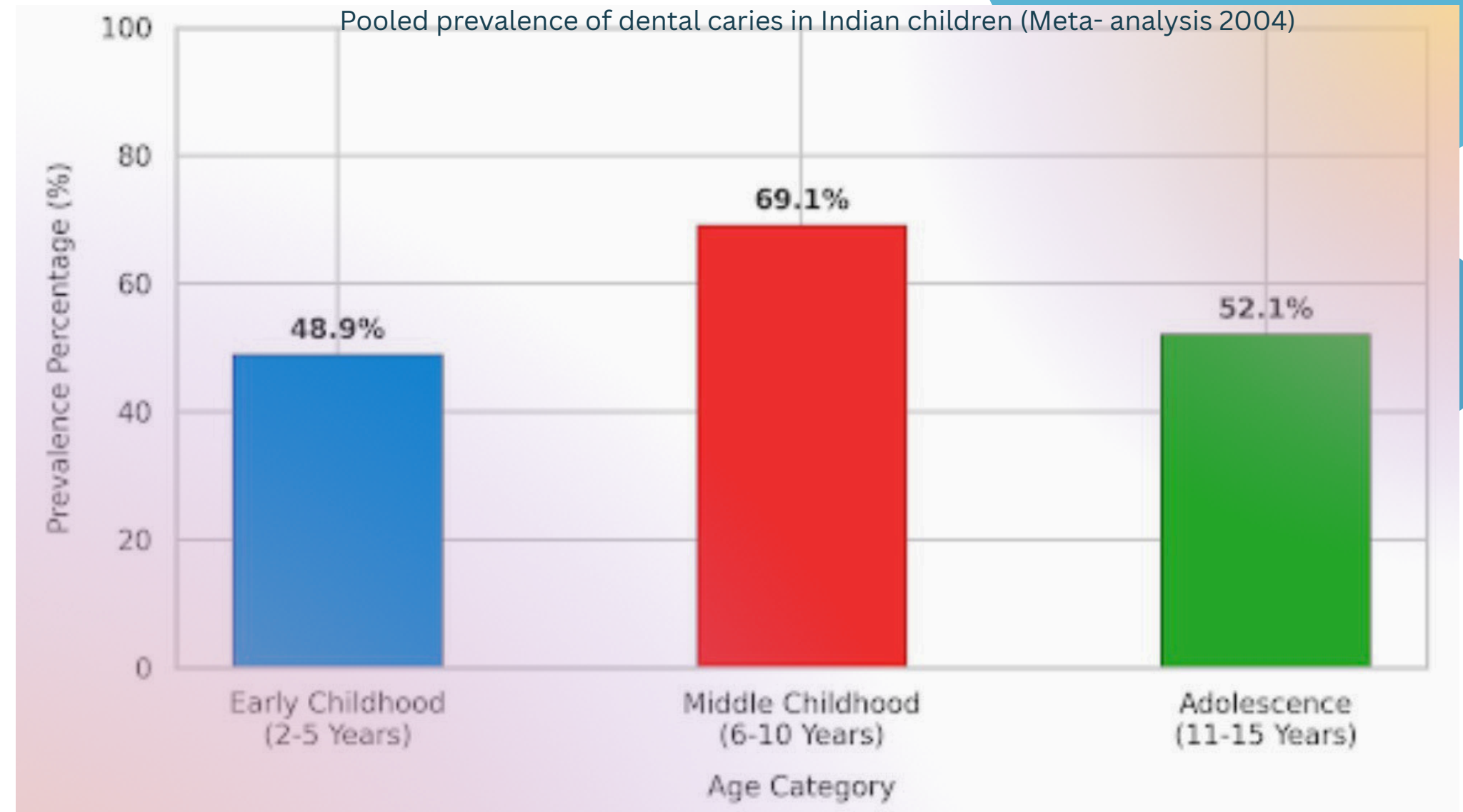


Dental caries: The hidden burden

Dental caries is one of the most common chronic diseases in childhood.

Untreated disease causes pain, infection, and school absenteeism.

Most cases are preventable with early intervention.



Acc. to National Oral Health Survey of India & Fluoride mapping (2004)

Psychological Impact

Reduced self-confidence due to visible decay

Avoidance of smiling or social interaction

Emotional distress associated with chronic oral pain

Improved quality of life after treatment

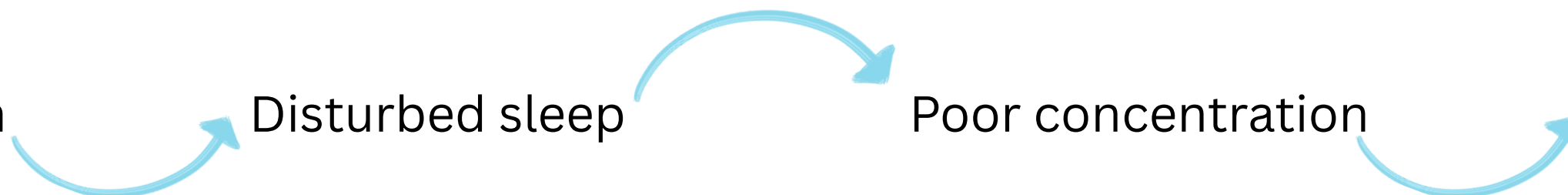


Dental pain

Disturbed sleep

Poor concentration

Behavioral changes



Oral–Systemic Connections

Oral health is increasingly being recognized for its inter-relation to systemic health with emerging evidence that has highlighted its bi-directional relationship .

- Diabetes
- Asthma
- Amelogenesis imperfecta (AI)
- Dentinogenesis impetfcta (DI)
- Cleft lip & cleft palate (CLCP)
- Down’s syndrome
- Systemic Lupus Erythematosus (SLE)
- Sjögren’s disease -Rare

Emerging Research in Pediatric Dentistry

Artificial Intelligence

Karamüftüoğlu N, Üçpunar BY, Birben İ, Altundağ AE, Mullaoğlu KÖ, Bal C. Artificial Intelligence in Pediatric Dentistry: A Systematic Review and Meta-Analysis. Children (Basel). 2026 Jan 21;13(1):152. doi: 10.3390/children13010152. PMID: 41597160; PMCID: PMC12839933.

Salivary Biomarkers

Shivaprakash PK, Dandamudi S, Tharani P, Sagarkar AR, Yadadi SS, Vinay V, Desai V, Walia T, Shetty RM. Assessment of proteomic salivary biomarkers for diagnosis of early childhood caries: a systematic review. Front Oral Health. 2026 Jan 6;6:1695189. doi: 10.3389/froh.2025.1695189. PMID: 41568140; PMCID: PMC12816231.

Oral microbiome research

Xiang Z, Liu Y. The pediatric oral mycobiome: a comprehensive review of its role in health and disease. Front Cell Infect Microbiol. 2026 Jan 28;16:1711789. doi: 10.3389/fcimb.2026.1711789. PMID: 41684946; PMCID: PMC12891119.



Interdisciplinary Collaboration

Department	Role
• Pediatrics • Psychiatry	• Growth & feeding concerns. In cases of natal/neonatal teeth. • Sleep & behavioral effects
• ENT • Nutrition • Dentistry	• Mouth breathing & sleep disorders • Dietary counseling • Prevention & early management

Case Reports

Case 01

5 year old patient was brought to the OPD with the c/o pain in the upper front region of the jaw.



Case 02

3 year old patient was brought to the OPD with the c/o decayed teeth in the upper front region of the jaw and has no pain.



Case Reports

Case 03. Natal tooth

We received a call from NICU regarding a 16 days baby having a tooth in the lower gums.

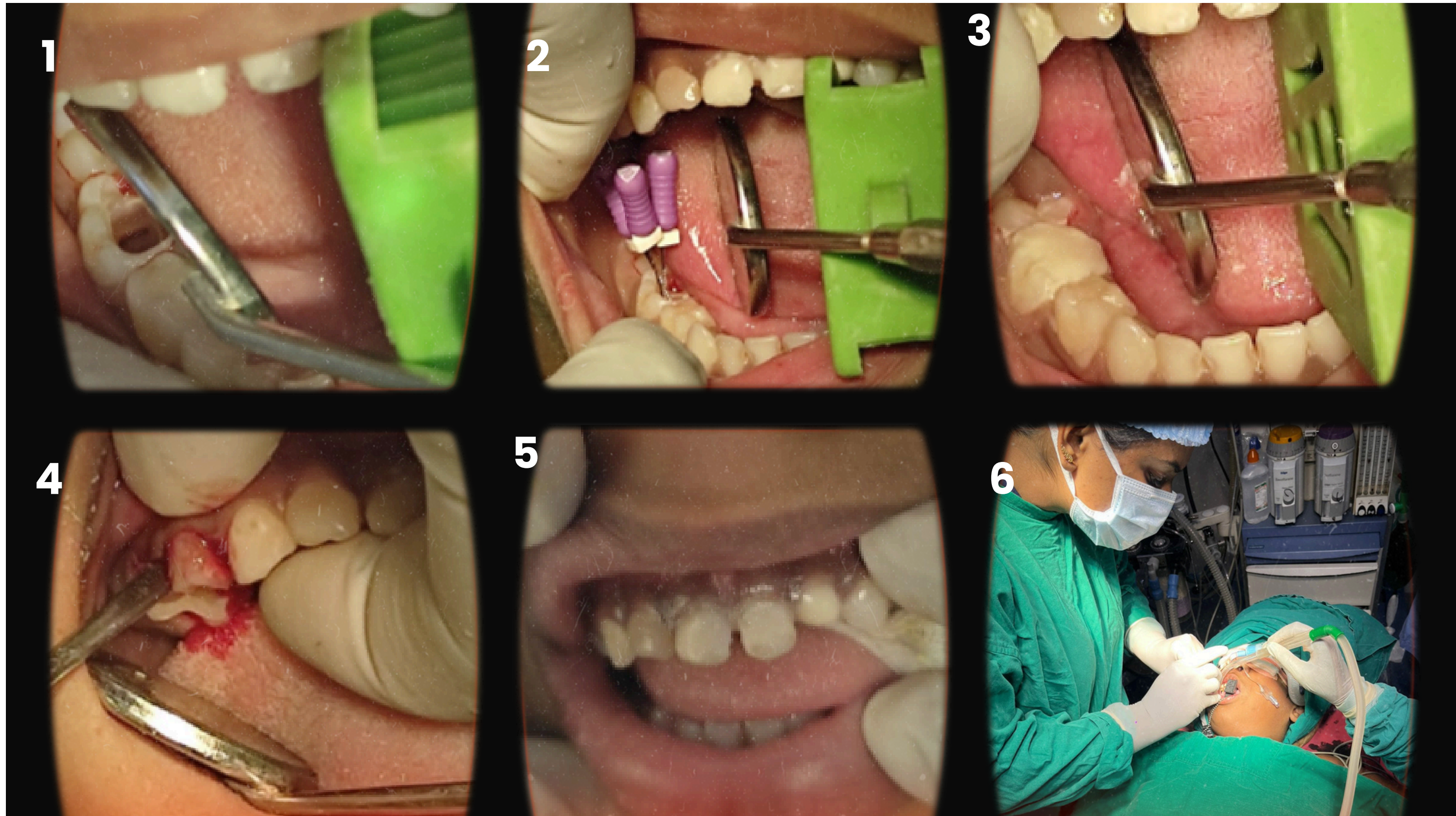


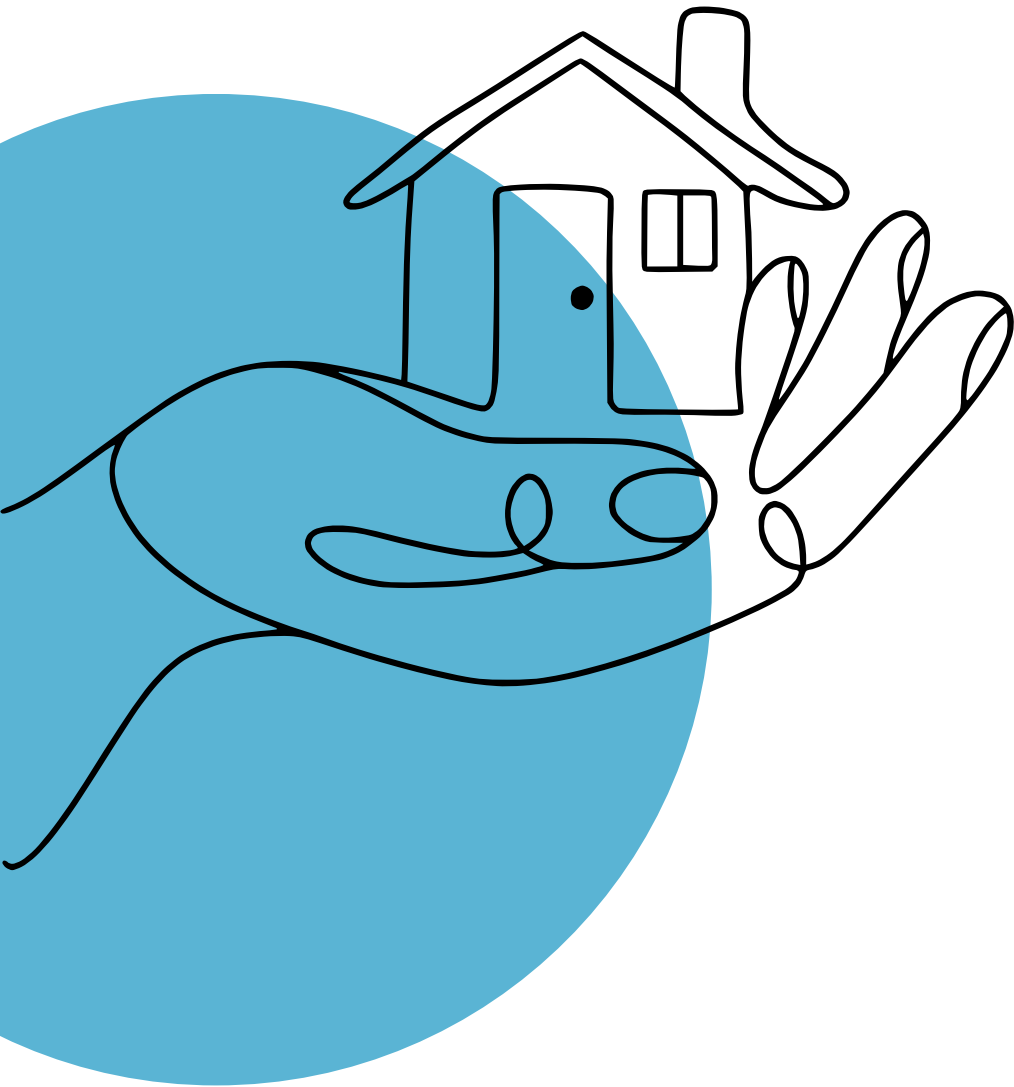
Case 04. Neonatal tooth

A 37 days old baby was brought to the OPD with c/o tooth in the lower gums



Full mouth treatment of a 6 year old child under GA due to his uncooperative nature





Take home message

- Primary teeth are important for overall child health.
- Dental caries is largely preventable.
- Early referral and interdisciplinary collaboration improve outcomes.
- Visit a Pediatric dentist.

Conclusion

“A healthy mouth is not separate from a healthy child. Pediatric dentistry is an essential component of comprehensive pediatric healthcare.”

Thank
you

