

Comprehensive Management of Severe Early Childhood Caries (S-ECC) in a medically Compromised Patient Using General Anaesthesia: A Case Report



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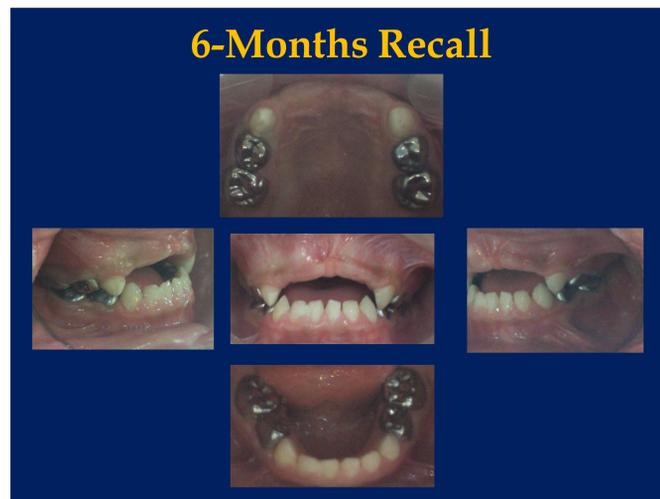
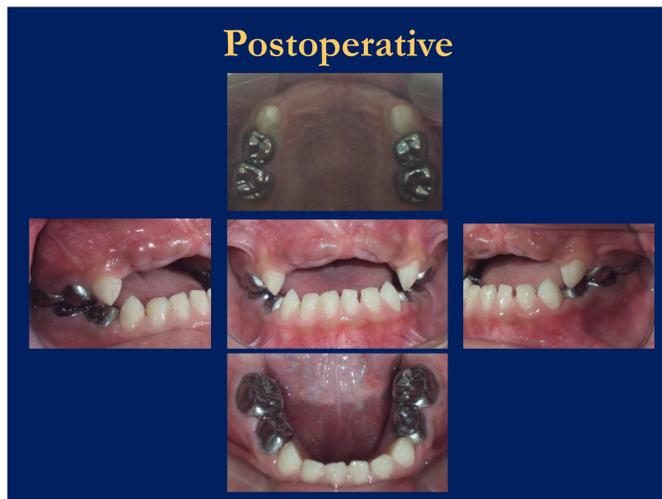
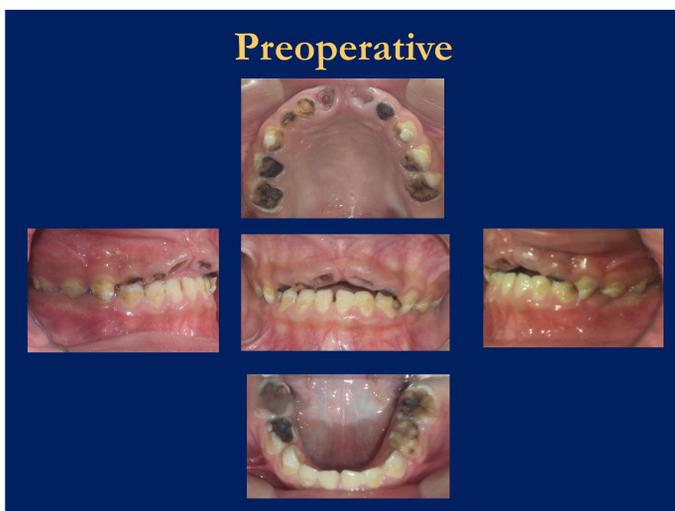
Introduction

The disease of early childhood caries (ECC) is defined as "the presence of 1 or more decayed (noncavitated or cavitated lesions), missing (due to caries), or filled tooth surfaces" in any primary tooth in a child 71 months of age or younger. In children younger than 3 years of age, any sign of smooth-surface caries is indicative of severe early childhood caries (S-ECC)¹. In Saudi Arabia, S-ECC presents a unique challenge as more and more patients are reporting dental clinics with signs of early or severe form of the disease. In the community served by the Northwest Armed Forces Hospitals (NWAFFH), Tabuk, Saudi Arabia, Stewart reported that more than 92% of 6-year-old children had caries in primary teeth². Consequences of S-ECC include a higher risk of new carious lesions, hospitalizations and emergency room visits, increased treatment cost and time, risk for delayed physical growth and physical development, loss of school days and increased days with restricted activity and a diminished ability to learn.

Although most children with S-ECC can be successfully treated in the dental office, some require complete sedation provided by general anesthesia (GA), which is administered in a hospital setting.

Case Report

A 6-year-old male patient accompanied by his parents reported to the Pediatric Dentistry Division, Dental Center, King Fahad Hospital, AL-Madinah AL-Munaorah, Saudi Arabia with a chief complain of "decayed and unesthetic appearance of upper front teeth". Medical history revealed that the child has bronchial asthma (mild- moderate) and he is on seretied inhaler. Clinical and radiographic examinations revealed a severe early childhood caries (S-ECC). Patient behavior was definitely negative and scheduled for full dental treatment using general anaesthesia (G.A). Parents consent was obtained before dental general anaesthesia. Patient was examined by pediatrician and anaesthetologist for clearance of G.A since the child is asthmatic. Patient was admitted as a day-surgery case and went for full dental treatment using nasal intubation. After completion of dental treatment, extubation was conducted and the child was transferred to recovery room. When the discharge criteria were met, the patient was discharged home with complete postoperative instructions and home medications. The patient was scheduled for 6-months follow-up plan.



Discussion

Early childhood caries seriously affects a child's well-being, learning ability, and quality of life. Improper feeding habits such as night feeding or sipping from the bottle during the day and high frequency of sugar intake are the most significant risk factors of S-ECC³. Although severe early childhood caries is a multifactorial disease, it is preventable by well-organized prevention program. Contemporary clinical management of S-ECC is often accomplished using general anaesthesia⁴. Full mouth rehabilitation under GA includes restorative treatment, preventive procedures, and extractions.

Conclusion

Early childhood caries has been on the increase in many countries in recent years and has become a significant public health problem across the globe. General anaesthesia (GA) is an important and necessary behavior management technique which ensure optimal conditions to accomplish complex dental procedures.

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