

Treatment of Early Childhood Caries Under General Anesthesia: A Day Care Surgery

Maresh P Kumar^{1*} M Sunil Kumar² R Vignesh Guptha³ Avisa Priyanka⁴ Arjun Thomas⁵ Vivek K⁶

¹Professor and Head, Department of Pedodontics, Karpaga Vinayaga Institute of Dental Sciences, Kanchipuram, Tamil Nadu, India.

²Reader, Department of Pedodontics, Karpaga Vinayaga Institute of Dental Sciences, Kanchipuram, Tamil Nadu, India.

³Reader, Department of Pedodontics, Karpaga Vinayaga Institute of Dental Sciences, Kanchipuram, Tamil Nadu, India.

⁴Senior Lecturer, Department of Pedodontics, Karpaga Vinayaga Institute of Dental Sciences, Kanchipuram, Tamil Nadu, India.

⁵Senior Lecturer, Department of Pedodontics, Karpaga Vinayaga Institute of Dental Sciences, Kanchipuram, Tamil Nadu, India.

⁶Senior Lecturer, Department of Pedodontics, Karpaga Vinayaga Institute of Dental Sciences, Kanchipuram, Tamil Nadu, India.

ABSTRACT

Background: A Day Care Surgery means were any surgical procedure to patients done on the day of their admission and discharged on the same day evening after the treatment. In Pediatric Dental Practice, any multiple treatments required for non-cooperative children are usually done under general anaesthesia; mostly DAYCARE SURGERY is practised.

Keywords: General Anesthesia, Early Childhood Caries, Full Mouth Rehabilitation.

INTRODUCTION

In general, medical practitioners will do minor surgical procedures as daycare surgery. In pediatric dentistry, most of the children can be managed by non-pharmacological methods of behaviour management, but a child who is uncooperative, fearful, lacking cooperative ability with multiple treatment needs or medical complications may require pharmacological methods like General Anesthesia or Conscious Sedation. General Anesthesia for pediatric dentistry should only be administered within the hospital setting. (1)

Early childhood caries can begin early in life, progress rapidly in those who are at high risk and often go untreated. (2) Nursing caries is a specific form of rampant caries affecting the primary teeth of infants as a result of improper nursing habits like a prolonged unrestricted bottle and breastfeeding. The present case report describes the treatment of early childhood caries under general anaesthesia as a daycare procedure.

CASE REPORT

A female patient aged four years came to our department of pedodontics with the chief complaint of pain and swelling in the upper front tooth region. Clinical examination revealed caries involving labial, lingual, and proximal surfaces 52,51,61,62, and caries in occlusal and proximal surfaces with pulpal involvement in 54,64. Occlusal surface involvement in 75, 84 and 85. Figures (1-3)

On radiographic examination, caries involving enamel and dentine approximating the pulp was seen in 54,52,51,61,62,64. Figures (4-6) Based on age, history of bottle feeding and caries location, and it was diagnosed as early childhood caries. Treatment planned was extraction of 54,52,51,64,62,61. followed by oral prophylaxis, diet counselling, composite restoration in 55,65,75,84,85; functionally removable space maintainer and recall review visits. Treatment was done in a hospital set up under General Anesthesia. Figures (7-9)

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***Correspondence Dr. Maresh P Kumar.**

Department of Pedodontics, Karpaga Vinayaga Institute of Dental Sciences, Kanchipuram, Tamil Nadu, India.

Email: Not Disclosed



Fig 1: Facial view of patient's occlusion showing caries affected 51,52,61,62.



Fig 2: occlusal view of patient's occlusion showing caries affected 51,52,61,62,54,64.



Fig 3: Occlusal view of patient's mandibular occlusion showing caries affected 75,84,85.

DISCUSSION

Nowadays, dental treatment under GA for the pediatric patient has become common, and in fact, it becomes routine for not cooperative or medically compromised children with multiple treatment needs or full mouth rehabilitation procedures. Though psychological trauma will be there for

parents as well as a child regarding general anaesthesia risk factors, it also the importance of child dentist and anesthesiologist to discuss benefits, risk factors on GA to parents.



Fig 4: IOPA showing caries affected 51,52,61,62.

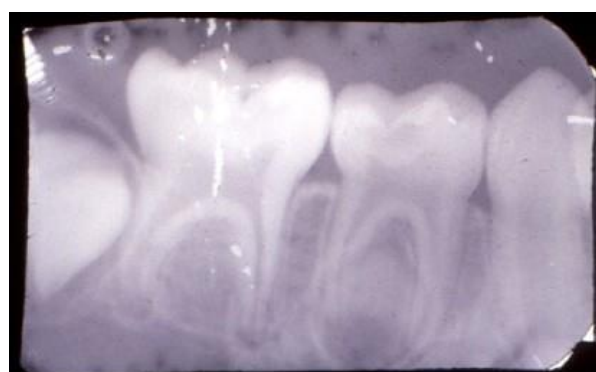


Fig 5: IOPA showing caries affected 84,85.



Fig 6: IOPA showing caries affected 74,75.



Fig 7: Occlusal view of the patient's maxillary occlusion following treatment.



Fig 8: Occlusal view of the patient's mandibular occlusion following treatment.



Fig 9: Facial view of the patient following treatment with the removable functional space maintainer.

The number of children receiving dental GA has been rising since 1997, and although the reasons for this are not entirely clear, some studies have noted a reluctance or lack of confidence of dental professional to treat children in general practice which may contribute to the high number of children being referred to General Anesthesia practice(3,4). The treatment under GA is not without risk, and there is a need to ensure this

treatment approach is conducted only when necessary (5).

A written and informed consent form should be obtained from the parents or caregivers. In this form pediatric dentist explain the use of GA and dental procedures. It should be informed about performing alternative treatments found necessary during the course of operations on the basis of the operator's decision. (6)

INDICATION OF GENERAL ANESTHESIA

1. The use of local anaesthesia is either contraindicated or inappropriate due to the presence of acute orofacial infection
2. Previous failure of local anaesthesia or sedation
3. The patient is unable to cooperate with the proposed treatment due to immaturity, disability or language difficulties
4. The patient suffers from a psychological disorder such as severe anxiety
5. Extensive treatment is required.

Children who require general anaesthesia for dental treatment should receive the same standard of care as those who require GA for any other procedure. For the majority of patient, dental extractions, restorations, or both may be performed as daycare procedures. (7) Likewise, in the present case; we performed five dental extractions, six composite restorations and removable functional space maintainer delivery.

CONCLUSION

General anaesthesia adds a convenient treatment modality to the arsenal of the dentist facing the challenge of treating a complicated pediatric patient where that majority of the treatments can be done in a single sitting as a Day Care Procedure.

CONFLICTS OF INTEREST

The authors declare they have no potential conflict of interests regarding this article.

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