GENERAL ANESTHESIA-HIGHEST PROCEDURE COUNT DONE IN SAVEETHA DENTAL COLLEGE PEDODONTIC DEPARTMENT

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S.V. Rupashri
Undergraduate
Saveetha Dental College, Saveetha University, India

Dr. Kanthaswamy.A.C.
Senior lecturer
Department of pedodontics
Saveetha Dental College,
Saveetha College of medical and technical science, India

Corresponding author
Dr. Kanthaswamy.A.C.
Senior lecturer
Department of pedodontics
Saveetha Dental College
Saveetha college of medical and technical science.
162 Poonamallee High Road
Chennai- 600077

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ABSTRACT:

AIM: This study is based on the highest procedures done using general anesthesia In Saveetha dental college pedodontics department.

OBJECTIVE: Most child population is able to undergo dental treatment in the conventional setting. This survey aims to discuss the topic further.

BACKGROUND: Pedodontists treat most children adequately using behavioral techniques. However, certain children cannot receive treatment via these methods. Dental treatment using general anesthesia (GA) is a rehabilitation treatment for pediatric patients. GA is a controlled state of unconsciousness in which protective reflexes is lost. Pediatric patients with a very young age, or those suffering physical, mental, cognitive or emotional immaturity or disability or those with extreme anxiety who need extensive rehabilitation are treated using GA. In some cases, dental GA is the most practical and cost-effective mode of treatment.

REASON: This study is to gain knowledge about the highest procedure done under General anaesthesia.

Keywords: General Anaesthesia, Behavioral technique, Pediatric patients, anxiety, cost-effective

INTRODUCTION:

General anesthesia is a restoratively prompted unconsciousness with loss of defensive reflexes, coming about because of the organization of at least one general analgesic specialists. It is done to permit therapeutic methodology that would somehow or another be deplorably excruciating for the patient; or where the idea of the technique itself blocks the patient being conscious. The first general anaesthetics administered were for dental extractions. The first general anaesthetic administered for a dental extraction is credited to Connecticut dentist Horace Wells [1]. General anaesthesia for dentistry is not without risk and should not be undertaken as a first-line means of anxiety control. The concept of general anaesthesia as a means of performing painless dental work was thus born[2]. This development facilitated the expansion of the dental profession, enabling increasing emphasis on restorative and conservative work, where previously there had been little to offer to sufferers but simple extraction.

It was highlighted that general anaesthesia was often used inappropriately as a method of anxiety control, in situations where local anaesthesia with or without sedation might be appropriate.[3] It was recommended that general anaesthesia should only be administered where no alternative existed such as the following: Recommendations were also made that administration of dental anaesthesia should only be carried out by:

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likely to allow safe completion and requires a trained anaesthetist with a dedicated way to review to deter.

- Differences in caries experience and treatment carried out under general anaesthesia and follow-up visit. The children's records were reviewed to determine the following: age at the time of dental treatment; gender; requirement for hospitalisation and further admission; number of decayed teeth; type of dental procedure completed.

RESULT:
Of the 50 patients reviewed in the survey, 28 were males and 22 were females with a mean age of 2-4 years at the time of the General anaesthesia. Twenty patients (55%) had a history of nursing caries. Thirty patients (45%) were behavioral management problems or patients requiring extensive treatment.

MATERIALS AND METHOD:
Complete records of 50 patients who attended Saveetha dental college in chennai for dental treatment under general anaesthesia were included in the survey. Data were collected from the records of the 50 children including age, sex, past dental history, past medical history, indications for and treatment carried out under general anaesthesia and follow-up visit. The children's records were reviewed to determine the following: age at the time of dental treatment; gender; requirement for hospitalisation and further admission; number of decayed teeth; type of dental procedure completed.
Oral hygiene practices: Results regarding oral hygiene practices for the children are also taken into review. Daily tooth brushing was reported to be carried out by parents for 30(68%) of the children. 20(32%) children brushed daily on their own. Parents reported that their children's teeth were brushed an average of twice a day.

In this study 64% of the children were under general anaesthesia due to lack of co-operation and 36% of them was for full mouth rehabilitation is given in the above graph 1. The whole procedure done for 20 patients done under general anaesthesia is given in graph 2 according to the patient’s need respectively.
The above given graph 3 is the number of procedures done for 50 patients using general anaesthesia. 80 extraction procedures were done as the tooth could not be saved. 250 pulpectomy procedures were done. Pulpectomy is the mostly done procedure in children in consideration of saving the tooth. 180 stainless steel crowns are inserted and 80 strip crowns are given. 100 conservative resin restoration PRR is done in 50 patients. 125 LCR and 180 GIC were done in total. 150 pit and fissure sealant is given as an initial stage to save the tooth. Respective to 50 patients scaling and fluoride application is done to everyone.

The above graph 4 is the strip crown and stainless steel crown used for 20 children. This study denotes that stainless steel crown is used more than the strip crowns mainly after pulpectomy procedures.

**DISCUSSION:**
This study was done among both General as well as specialist dental practitioner. This study appears to confirm the world-wide trend that increasing numbers of children are receiving treatment under general anaesthesia [17-21]. In this study, we demonstrated that there was a trend towards conducting dental procedures under general anesthesia where 95% of the children were between the ages of 2 years 3 years 6 months and 4 years 1 month. Dental caries was the most common reason for referral for general anaesthesia, with the proportion of children referred with caries rising from 76% in 1983 to 83% in 1996. This is disappointing given that caries has declined over the past few decades in Australia [22,23].

Patient factors found to be associated with the need for a second session of dental treatment under general anesthesia were: 100% involvement of maxillary central incisors at time of initial GA was resulted by Barbara Sheller at al in his study of Reasons for Repeat Dental Treatment Under General
Anesthesia for the Healthy Child. GA was essential to treat all of these patients. Ten patients (23%) required further restorative treatment or extractions at follow-up visits an average of 14 months after treatment under GA. This confirms findings of Legault [24] and O’Sullivan [25]. However, unlike these studies, none of the patients in this study was retreated under GA.

In a prospective study by Fung et al. [26] post-operative pain was reported by 57.5% of the children immediately after the treatment, justifying the administration of medication for post-operative analgesia. The same report showed that the need for analgesia was highest immediately after extraction of teeth. In the present survey the difference in reported pain could be explained by the administration of analgesic medication to all children at the end of the procedure. Tsai et al. [27] found that a greater number of extractions were carried out for chronically sick children, than healthy children in this study extraction was done less than other procedures in consideration to save the tooth.

In this study, 90% of patients were treated under general anesthetiser just because of dentistry-related fear or lack of cooperation at a younger age. This prevalence was higher than analogous rates determined by Wang et al. (40%), [28] Vermenlen et al. (42%), [29] and Tarjan et al. (49%). [30] However, O’Sullivan [25] reported that general anesthesia was used for 76% of their cases due to behavioral problems alone. Harrison et al. found that a greater number of extractions were carried out for chronically sick children, than healthy children with similar findings observed by Tsai et al. [27], and in the present study. Before the age of 6 years old, there was no difference in the total number of teeth treated in either group. However, the number of extracted teeth was greater in the disabled group. Underlying medical conditions may affect the treatment modality provided. The dentist may prefer a less complex dental procedure for a disabled child to avoid complications or the necessity for re-treatment. For example, a tooth extraction is preferable to pulp therapy for periapical pathological teeth. When young children are in need of extensive dental treatment and do not tolerate routine restorative treatment and extractions with the use of local anaesthesia and behaviour management, other treatment modalities are needed. Sedation does not allow treatment in very young patients or for prolonged periods. Previous reports have shown that comprehensive dental care under general anaesthesia can be carried out safely in a day-care facility with a high level of acceptability [32,33]. Successful outcome of full-mouth rehabilitation for the pediatric dental patient under GA depends on the expertise of the medical and dental team and the ability of parents or caretakers to comply with preventive dental care for their children following GA. Legault et al. [24], reported in a follow-up analysis of 217 children treated under GA that 84 (38.6%) required further dental treatment within 15.6 months of initial treatment. Nine (10.7%) needed pretreatment under because of severe management problems or failure.

CONCLUSION:
Dental treatment performed under general anaesthesia is necessary for very young children or those with special health care needs. The underlying medical or mental condition may influence the dental condition and treatment modality provided. Hence the use of general anaesthesia should be well known for the procedure done.

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