Dentistry for the Handicapped Child

William F. Via Jr.
DENTISTRY FOR THE HANDICAPPED CHILD

WILLIAM F. VIA, JR., D.D.S., M.S.*

Dental treatment for severely handicapped children has always been considered to be impossible. However, recent advances have simplified this problem to the extent that handicapped children can now receive expert dental care with very few exceptions. This has primarily been due to two basic developments: 1. New drugs and techniques have been developed to protect children with certain diseases during dental treatment; and, 2. The perfection of safer methods of general anesthesia, employing non-inflammable anesthetics. The purpose of this paper is not to describe the specific dental technics employed, but rather to present the general procedure followed.

Handicapped children may be roughly grouped into two general classifications:

First, those suffering from diseases that require medication or special dental techniques to preserve the health of the child during dental treatment. This group includes children with congenital heart disease, epilepsy, hemophilia, and rheumatic fever.

Secondly, those children that are mentally retarded, have cerebral palsy or have severe behavior problems which prevent them from cooperating sufficiently to undergo routine dental care. Examples of this group are those children suffering from congenital brain defects or irrepressible fear.

The first group, that is, those who cannot be treated by routine methods because of concomitant physical afflictions, are managed as follows:

A medical history of the patient is taken from the parent, including the reaction of the child to previous dental treatment. A preliminary visual examination of the mouth is done, and complete dental roentgenograms are obtained. Using the radiographs and the preliminary examination chart of the mouth, a complete appraisal of the patient’s oral health is accomplished. The time required for treatment is estimated, and it is determined which teeth may be restored and which must be sacrificed.

Consultation is held with the patient’s physician to determine the child’s general condition and to decide what preoperative steps must be taken to adequately protect the health of the child before, during and after dental treatment. For those patients with congenital heart disease, rheumatic heart disease or with a history of rheumatic fever, the type and dosage of antibiotic medication, anesthesia and sedation is discussed. It is also decided whether the child may be treated as an out-patient or must be admitted to the hospital.

The type and amount of drugs to be given preoperatively to reinforce maintenance medication for children with a history of epileptiform seizures, mild cerebral palsy or mental retardation is also determined. The parent is then con-

*Associate, Division of Oral Surgery and Dentistry.
tacted, and the preoperative medication prescribed, the dental treatment program outlined, and appointments made for subsequent care.

If the patient is admitted to the hospital, the following plan is instituted:

Admission is arranged a day or two prior to operation to enable complete evaluation of the patient's condition and to aid the anesthesiologist in evaluating the risk of general anesthesia. Routine pre-anesthetic workup is done by a member of the pediatric staff. Consultation with a neurologist or pediatric cardiologist are obtained, if indicated. The anesthesiologist then determines whether the routine premedication for surgical general anesthesia, based upon the patient's weight and age, is adequate or should be supplemented with other drugs.

The patient is given the indicated premedication approximately one hour preoperatively and is moved to the operating room where the anesthesia is induced. The technique of anesthesia varies considerably depending upon the individual patient. However, it is usually necessary to insert an endotracheal tube via the mouth. After a surgical plane of anesthesia is reached and the tube is in position, a mouth prop is positioned and the posterior part of the mouth is packed with 4x8 gauze sponges. All fillings and extractions are completed for the patient at this time. Extreme care is used to prevent the aspiration of any debris or excess filling material.

After the completion of dental treatment, the oral cavity is searched for any extraneous particles that may have been previously missed. The mouth pack is removed, and the anesthesiologist terminates the anesthetic and removes the tube. The patient is moved to the recovery room where he remains until all reflexes become reactivated. Following complete recovery from anesthesia, he is returned to his room.

It is usually possible to discharge the patient on the day following the operation. Prior to discharge, the parent is instructed in adequate home care of the mouth, and dietary suggestions are made to reduce the occurrence of dental caries.

The child with a so-called behavior problem is handled in a somewhat different manner. The parent usually gives a history of having taken the child to various dentists only to have the child refuse treatment. Since this child usually has a mentality within the limits of normal, an attempt is made to allay his fear of dental treatment, for it is necessary to gain a child's confidence if dental treatment is to be possible on an out-patient basis.

If the parent is willing to cooperate, a series of orientation appointments are arranged for which no active treatment is planned. These appointments are used to establish rapport with the child and to prepare him for dental treatment in the future. If it is not possible to orient the child sufficiently to allow him to be cared for as an out-patient, he is admitted to the hospital, and the operation is done under general anesthesia as described previously. It is difficult to gain sufficient cooperation from most children for a smooth induction. It is, therefore, necessary to use the maximum allowable premedication, to minimize the psychological trauma of the trip to the operating room and induction of anesthesia.
When the treatment has been completed, home care of the mouth is discussed with the parent. Appointments are arranged for periodic dental examinations. It is hoped that, by seeing the patient for examination and oral prophylaxis at frequent intervals, it will be possible to allay his fears sufficiently so that future dental treatment may be accomplished in the usual manner.

**SUMMARY**

Adequate dental treatment for severely handicapped children can only be performed safely in a hospital with the cooperation of various medical specialists and the facilities to care for any emergency.

The technique used at Henry Ford Hospital encompasses the following points:

1. An appraisal of the type and seriousness of the patient’s handicap is made by consultations with specialists in appropriate Medical fields.

2. A dental treatment plan is formulated, including the necessary steps to protect the health of the child during the treatment.

3. The dental treatment is completed in the clinic or the operating room as the needs of the patient dictate.

4. The parent is instructed in the proper care of the patient’s mouth at home, and follow-up appointments are arranged.