CASE REPORT

EVALUATION OF CHAIR SIDE DENTAL CARE PROVIDED TO CHILDREN WITH SPECIAL HEALTH CARE NEEDS

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Abstract:

Dental treatment in children and adults with physical and mental disabling conditions and genetic disorders is difficult despite the fact that they are at higher risk to develop oral dental disease. The aim of the study is to evaluate chair side dental care provided and assess the success of the treatment over period of one year to children and adults with special health care. Group of 58 including both children with mean age of 14 years out of which 21.7% cerebral palsy children, 17.3% Attention Deficit Hyperactive Disorder, 2.17% were Autistic, 17.3% Down’s syndrome, and 41.3% mentally retarded children. The treatment like prophylaxis, restorations including pulpectomy, root canal treatment and stainless steel crown, exodontias and interceptive orthodontics were achieved under local anaesthesia required with or without restraint. After a follow up of one year 100% success was achieved except oral prophylaxis were required in 89.28% of the individuals. An attempt of providing chair side dental treatment was successful in individuals with special health care and one year follow up showed good results

INTRODUCTION:

Disabled people, especially those mentally handicapped have a lot of oral diseases and treatment needs, most of them not satisfied. It is common to find poor dental hygiene with high gingivitis, calculus in early ages, intense halitosis and food remnants in teeth and mucosa, cariogenic and soft diet. The typical situation in different parts of the world is that of neglect of disabled child such that most of the caries is untreated with very poor oral hygiene1-6.

Disabled people have the same right as other people to receive health care they need, but they sometimes fail to achieve it. Dental management of handicapped child has received scant attention in the literature compared with normal child. A very few literature mentions about treatment provided under conscious sedation and general anaesthesia. Despite the fact that general anaesthesia can assist in providing quality dental care but it always the last resource of treatment in normal as well as mentally handicapped
children. In most of cases dental treatment is avoided as general anaesthesia is expensive.

In Indian scenario, parents of handicapped children give more attention to their medical condition of the child and very high level of ignorance prevails regarding the need of dental treatment. This results in handicapped child suffering from poor oral health.

Other reasons could be professionals are not trained to provide dental care to these individuals. This partly explains why handicapped child have not received their fair share of dental management in the community. The clinical management of special patients may require additional staff members, extra time, various behaviour modification techniques including physical restraint, and or sedation for which the dentist may not be reimbursed. These factors account for why the disabled child has difficulty in obtaining dental treatment in most part of the world.

The aim of the study is to evaluate chair side dental care both curative and preventive and assess the success of the treatment over period of one year in children with special heath care needs.

Methodology:

Group of 58 including both children going to Shristi special academy in Bangalore, with mean age of 14 years were examined and treated in Department of Pedodontics, M.S.Ramaiah Dental College & Hospital, Bangalore. Relevant data were taken from case histories with regard to their general health, oral health and behaviour. Details on the medical history of each child were obtained from the hospital file. The study group included 41.3% mentally retarded children, 21.7% Cerebral palsy children, 17.3% Down’s syndrome, 17.3% Attention Deficit Hyperactive Disorder ADHD and 2.17% were Autistic (Table 1). All type of dental treatment was achieved under local anaesthesia with or without restraint. It was followed by individualized oral hygiene instruction and diet counselling to parents and supervising staff. A follow up of one year was done to evaluate the success of the dental treatment provided to study group. Descriptive statistical method was used to analysis the data using SPSS (version 16).

Table 1: Distribution according to medical diagnosis

<table>
<thead>
<tr>
<th>TYPE OF DISORDER</th>
<th>NO. OF PATIENTS</th>
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<tbody>
<tr>
<td>Mentally Retarded</td>
<td>41.30 %</td>
</tr>
<tr>
<td>Cerebral palsy</td>
<td>21.73 %</td>
</tr>
<tr>
<td>ADHD</td>
<td>17.39 %</td>
</tr>
<tr>
<td>Downs Syndrome</td>
<td>17.39 %</td>
</tr>
<tr>
<td>Autism</td>
<td>2.17 %</td>
</tr>
</tbody>
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Results:

On dental examination caries was observed in 97.82% followed by dental plaque in 56.52%, tooth mobility in 10.8%, tooth remnants in 13.04% and dental fracture in 4.34% (Table 2). The treatment modalities carried out were prophylaxis in 28 individuals, restorations including pulpectomies, root canal treatment and stainless steel crown (47 teeth), exodontias (4 teeth) and interceptive orthodontics like band and loop space maintainer in 1 individual (Graph 1). About 12 special children were un-cooperative for dental procedure under local anesthesia and were recommended for oral rehabilitation under conscious sedation or general anesthesia. After a follow up of one year it was found that all the dental procedures rendered except oral prophylaxis was 100% successful whereas oral prophylaxis was required in 89.28% of the individuals.

Table 2: Percentage of Special children with dental pathology

<table>
<thead>
<tr>
<th>DENTAL PATHOLOGY</th>
<th>NO. OF PATIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental Caries</td>
<td>97.82 %</td>
</tr>
<tr>
<td>Dental Plaque</td>
<td>56.52 %</td>
</tr>
<tr>
<td>Tooth Mobility</td>
<td>10.86 %</td>
</tr>
<tr>
<td>Tooth Remnants</td>
<td>13.04 %</td>
</tr>
<tr>
<td>Dental Fracture</td>
<td>4.34 %</td>
</tr>
</tbody>
</table>

Graph 1: Chairside dental treatment provided to special children
Discussion:

Many studies pointed to unequal access to care, which was tied to a host of underlying elements, including: economic factors, lack of information, physical/structural obstacles inherent to the institutions themselves, and inadequate preparation of health personnel.

In the present study 46 handicapped individual nearly half of them had poor oral hygiene and periodontal disease due to lack of proper oral hygiene measures. Oral prophylaxis was carried out in 28 individuals which is 60% of the population. When compared to study conducted by Gracia and Lopez only 10 handicapped individual underwent oral prophylaxis out 66 handicapped children.

Nearly 82% of the population underwent glass ionomer or amalgam restoration. Restorative treatment like root canal treatment was attempted in 2 teeth and pulpectomy in 2 teeth. Stainless teeth were attempted in one teeth and space maintainer such as band and loop was attempted in one individual. Extraction was done under local anaesthesia 3 individuals.

Preventive measures like pit and fissure sealants was done on 11 teeth. In study discussed by Gracia and Lopez preventive measures used were topical fluoride application, periodic scaling and prophylaxis.

After the follow-up of one year it was observed that all individuals required oral prophylaxis this emphasized oral hygiene methods was not strictly followed where as other treatment like restoration, space maintainer and pit and fissure sealant was intact.

In children with special needs, there may be circumstances justifying more frequent use of general anaesthesia for dental treatment. This does not mean that it will be necessary in all handicapped individuals; an attempt can always be done to do chair side dental treatment. In the present study an attempt to provide chair side dental treatment was found to be very successful in large group of handicapped individuals.

The provision of oral care to patients with severe disabilities requires empathy, patience, and a high degree of knowledge and skill. Quality oral health care for special need patients is defined as a program that is person-centered, provides individualized treatment with comprehensive continuous care, provides access to specialized care when necessary, and uses the least restrictive approach to gain in patient cooperation.

Conclusion: An attempt of making chair side dental treatment such as oral prophylaxis, restorations including root canal treatment and pulpectomy, stainless steel crown, space maintainer, exodontia and preventive measures like pit and fissure was available for individuals with special health care was made and one year follow up showed good results. Hence the provision of comprehensive dental health care programme for children and adults with special health care needs should be the top priority of pedodontist.

Reference: