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# DENTAL MANAGEMENT IN CHILDREN WITH AUTISM

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## ABSTRACT

**Introduction.** Autism is a common neurological disorders that manifests before 3 years of age. There are disorders in communication, social interaction and behavior; caused by multifactorial. The purpose of this Study. The purpose of this paper is to regognize dental management in children with autism. **Discussion.** Dental treatment in children with autism depend on the severity of cases, and could be accomplished just merely conventional approach/ non farmacological approach and with farmacological approach, up to general anesthesia. **Conclusion.** Dental treatment in autism children could be done depends on the severity of cases conventional and farmacological approach.

**Key words:** Autism, Farmacological approach, Non Farmacological.

## INTRODUCTION

Childhood autism is a complex disorder throughout the language, social interaction, difficulties in motoric perception. In this state there is a disturbance of the development as seen in disorders of social interaction and behaviour.<sup>1</sup>

The word autism comes form autos that means him/her-self, and ism means system on name of subject. Autism means a belief that depends only on him/her-self.<sup>2</sup> This disorder is also called, Eearly infantile autism, early childhood psychosis, childhood schizophrenia. The prevalence of autism is about 0.03-0.1% or 2-7 cases in 10.000 under 12-year-old children. Autism is more frequently found in 3-year old children, in mates is more than in females (3-5:1).<sup>1,3,4</sup> An autism child has normal performance but the disorders cause him/her unable to interact (socially and communicatively) normally. Autism children have high index of caries and prevalence of periodontal diseases.<sup>4</sup> The aim of this study is to acknowledge the dental management in autism children.

## LITERATURE REVIEW

### Etiology<sup>1,4,5</sup>

Up to now we have not found out the exact causes of autism except multifactorial interaction such as multifactor genetics and environmental factors. Genetically an autism family has 3-8% risk to have an autism child. It is a hereditary condition and

could be predicted through those associated with dominant or recessive X factor or X-linkage.<sup>5</sup> Other causes are Fragile X Syndrome, Tuberous sclerosis, prenatal factors such as Phenylketonuria/ PKU, Encephalitis, Herpes Simplex.<sup>1,4,6</sup>

Predisposing factors of autism are psychological such as 'cool mother', less stimulation or mother's refusal/rejection of the child. Other factors are neurobiological cerebellar, hippocampus, lobar parietal, and serotonin. Hypoplasia of The sixth and seventh lobe is found in most of autism children on whom The sixth and seventh lobe are smaller

Clinical feature of autism children.

An autism child can not make a social interaction such as playing with same-age mates, shameful, fearful and restless on any change of routine and environment. Early signs of autism in a baby are such as no visual contact/interaction with mother at 12-month age, refused to be embraced, no responding when called, not listening as if he/ she is deaf, and can not speak a single word until 16 month age.<sup>4</sup> Other signs are problems in toilet training, delayed bone maturation, sleep disorders, difficulty in eating, and crying disorders.

Permanent signs in autism are disorders in social interaction, behaviour and speech/communication, emotion, sensory and cognitive developments, anxious/fear for unexpected conditions.<sup>1-4</sup> More than 70% autism children have IQ lower than 70 that is called low functioning individuals and those with IQ higher than 70 are high functioning individuals. Cognitive disorders are reflected in memories, hearing, verbal (speech), concentration, and easy change attention. Early detection of autism in children could be found out by the parents, unfortunately the parents do not always aware of it because of lack of knowledge about autism. The diagnosis of autism is done by a pediatric neurologist through clinical examination using Magnetic Resonance Imaging/MRI, hearing and metabolic tests.

The prognosis is variable according to the intelligent quotient, communication ability, kind of signs found, and intensity of therapy.

Clinical feature of oral cavity in autism children.

There is no specific feature of oral cavity in autism. Generally, autism children are in higher risk to get dental caries and periodontal disease caused by disorders of the tongue muscles, and autism children tend to choose soft and sweet foods, beside neglected habits in cleansing the mouth.

Guidance in dental management of autism children

In dental clinic for autism children, we have some guidance to treat them as follow; A patient should bring his/her favourite toys; Orientation with the dentist by bringing the child to the clinic, to see the waiting room, show the tools that will be used. The clinic should be quiet and not crowded. Show the work of the dentist step by step; The

present of parents or baby-sitter as long as the management procedure. The dentist should always make discussion with the parents or baby-sitter about everything best for the child; Make the first visit as short as possible and have a positive affect; Use the tell-show-do approach. The dentist should explain every step of the management; In mild cases, modeling might be used in dental management of autism child; The dentist should speak softly, easy to understand. The dentist should give short and clear instructions; When the patient is seated on the dental chair, examine him/her using only fingers, keep the lamp from his/her sight; Give award for his/her good cooperation; As for home care, explain the use of toothbrush and tooth-string.

Dental management in autism children.

Dental management of autism children should be focused on the program to anticipate dental and oral diseases. So the parents should teach the children to routinely brush the teeth as early as possible.

To get good results, dental management on children with mild autism (border line or less IQ) might be done non pharmacologically using tell-show-do or modeling, while on severe autistic children we do pharmacologically, sedation up to general anaesthesia.

## DISCUSSION

Autism is a bad condition that occur in children since neonatal or under 3 years old. There are disorders in communication, social interaction and behaviour. They have uncommon motoric movement, imitating, shouting, and unawareness of the environmental condition. Some children might be shouting suddenly, irritable/angry of unknown cause, and such condition will cause difficulties in managing their dental and oral cavity.

The signs and symptoms of autism might be very variable in every child so that no autism child has similar behaviour with others.

In general, autism children have high index of caries and periodontal diseases caused by bad coordination of the tongue that make them "*mengemut*" the food. Therefore, autism child is usually given soft food. Soft food has less cleansing effect and this might cause caries. Besides, autism children like to eat sweet foods such as chocolate and sweets that are also cause caries. They have also behavioral disorders such as suddenly bite and clasp the mouth, push out the toothbrush with the tongue, that will make it more difficult to clean and brush the teeth, and bits of foods will left on the teeth. The left bits of food will soon forming plaque and at the end cause caries.

The severity of autism in children is variable from mild to severe. Mild cases might be able/willing to sit on the dental chair even by psychological approach and patience of the dentist. A patient like this can be managed at the clinic according to the guide. While a severe case might be shouting and difficult to be managed, then we could use pharmacological approach like using sedation or general anaesthesia. Local anaesthesia or inhalation sedation is not effective for autism child because of lack of communication

and we prefer to give general anaesthesia. Dental management in autism children will be better to be done in interdisciplinary approach called Special Care Dentistry.

## CONCLUSION

Dental management in autism children might be done by pharmacologic and non pharmacologic approaches according to the severity of the case. Non pharmacologic approach could be done psychologically and pharmacologic approach by general anaesthesia.

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