Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 9, Issue, 09, pp.57279-57281, September, 2017

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

ISSN: 0975-833X

RESEARCH ARTICLE

PERIO-PEDO INTERACTIONS: MANAGEMENT OF ANKYLOGLOSSIA IN AN AUTISTIC CHILD

[1,*]Dr. Waleed Khalid, [2]Dr. Neha Rathore and [3]Prof. Sankari, M.

[1]Consultant Periodontist and Implantologist, The Dental Studio, Chennai, India
[2]Senior Resident Doctor, The Dental Studio, Chennai, India
[3]Professor, Saveetha Dental College, Saveetha University, Chennai, India

ARTICLE INFO

Article History:
Received 20th June, 2017
Received in revised form
19th July, 2017
Accepted 11th August, 2017
Published online 29th September, 2017

Key words:
Autism, Autistic disorder,
Ankyloglossia, Tongue-tie,
Soft tissue laser,
Lingual frenectomy.

ABSTRACT

Autistic disorder is an organic disorder characterized by brain abnormalities, especially the cerebellum and limbic systems. An understanding of the background of autism and available behavioral guidance theories is required for the management of patients with autism. The treatment approach to the individual patients would need modification by the practitioner. This case report aims to review the guidelines for management of an autistic child and presents a case report of ankylossia in an autistic child.

Copyright©2017, Dr. Waleed Khalid et al. *This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.*

Citation: Dr. Waleed Khalid, Dr. Neha Rathore and Prof. Sankari, M. 2017. "Perio-pedo interactions: Management of ankyloglossia in an autistic child", *International Journal of Current Research*, 9, (09), 57279-57281.

INTRODUCTION

Autism was first described by Leo Kanner *et al* in 1943, as children with inborn features preventing them from forming regular social contacts (Kanner, 1943). The American Psychiatric Association in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) defines autistic disorders as a Pervasive Development Disorder, which is characterized by abnormal emotional and social behavior and linguistic development (American Psychiatric Association, 1994). Symptoms of autistic disorders include impairment in the quality of social communication and interaction and deviation in patterns of behavior, interest or activities, and to a lesser extent, impairment of hearing and delay in attaining milestones, usually diagnosed by the parents (American Psychiatric Association, 1994). The mean age for these symptoms to appear is 17 months and the mean age for final diagnosis is 44 months (Smith, 1994). The primary care providers can help in an early initiation of educational and behavioral treatment by early detection of symptoms like language delay in children in the age group of 18-40 months (Vostanis, 1994 and Mc Eachin, 1993).

Corresponding author: **Dr. Waleed Khalid,**
Consultant Periodontist and Implantologist, The Dental Studio, Chennai, India

This shows long lasting benefits for the children and their families and has proven to be very effective (Vostanis, 1994 and Mc Eachin, 1993). Thus, the pediatric dentist also has a very important role to play in management of autistic children and their dental needs. This article presents a case report of ankyloglossia in an autistic child and also aims to review the management of autistic children in a dental setup.

Recommendations for Management of Autistic Children

Studies (Shapira, 1989 and Kamen, 1977) found that prevalence of periodontal disease and caries susceptibility in autistic children is not very different from non-autisticchildren. According to Shapira *et al* (1989), the treatment needs for autistic children were oral hygiene and nutritional instructions; scaling and surgical periodontal procedures. Autistic patients should be desensitized to the dental office, and should be made familiar with the basic dentist's commands at home itself, with proper step by step rehearsals prior to the appointment (Kamen, 1977 and Swallow, 1969). Several visits to the dental office would be required to familiarize the patient with the dental environment (Mc Donald, 1994). Reduced ability to communicate to the dental team poses a challenge to the autistic patient. Limited attention span, uneven intellectual development, hyperactivity and low frustration threshold lead to temper tantrums and troubled vocalization (Kamen, 1977).

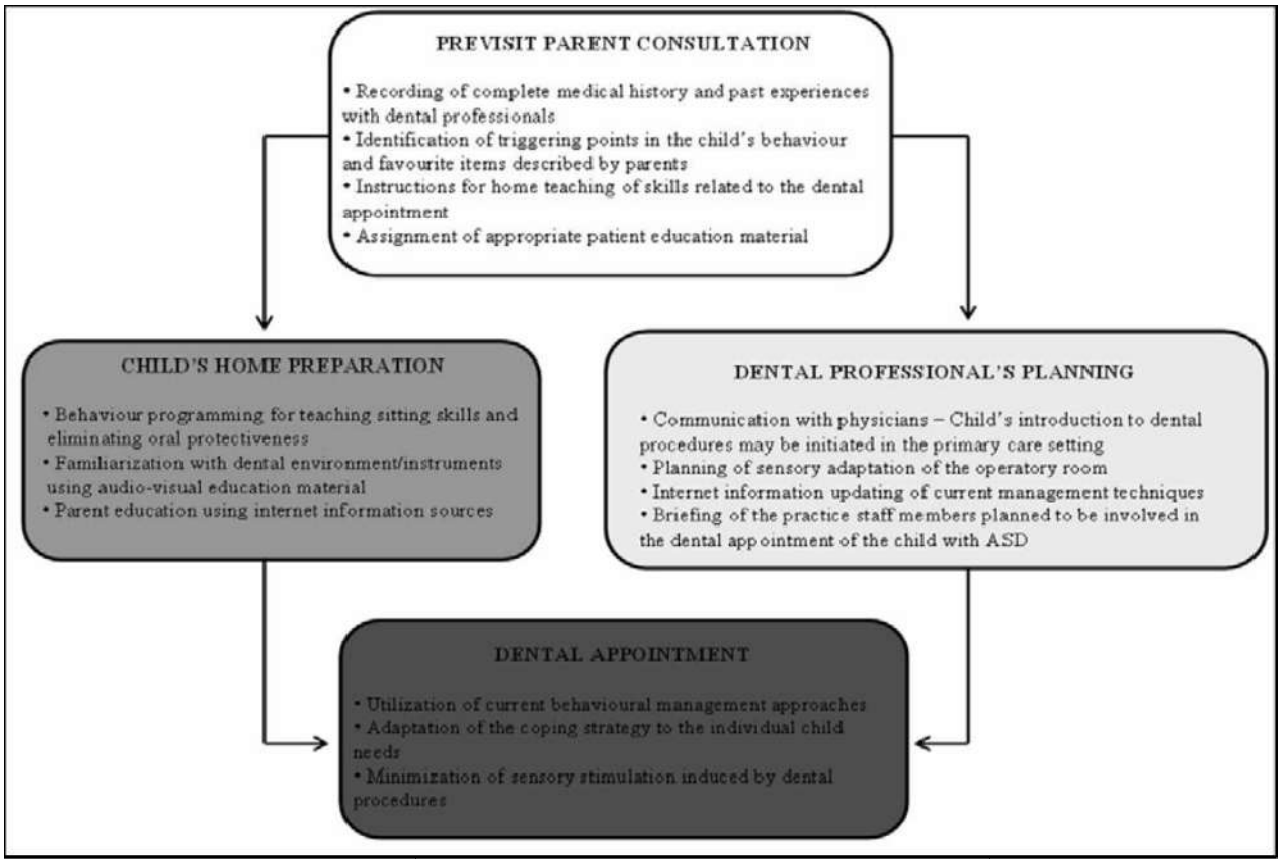


Figure 1. Flow chart of procedures suggested to be carried out before and during the dental appointments for management of autistic child

The practitioner should plan short well- organized appointments with a waiting period of not more than 10-15 minutes to counter such problems and avoid frustration (Kamen, 1977). Tell-show-do techniques can be used for behavior modifications for patients with autism, along with frequent positive and negative reinforcement (Kamen, 1977). Higher rate of flexibility when working and the use of clear, short and simple sentences for giving instructions would be required of the practitioner (Mc Donald, 1994).

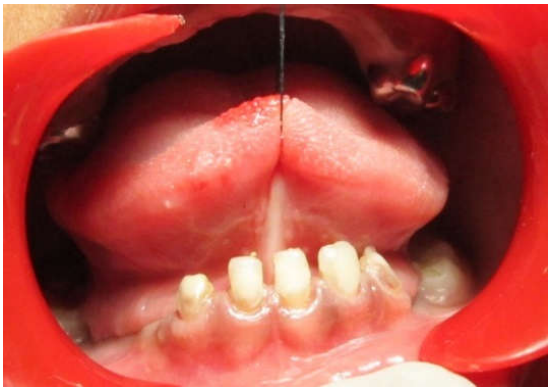
Case Picture 1. Preoperative View

Autistic disorder patients also have a tendency for self-injurious behavior (Lindermann, 1983). This may range from as mild as self-pinching or scratching to as severe as self-biting or head banging. The reason for this could be to attract attention of a family member or clinician or to avoid an unwanted event like the dental appointment (Lindermann, 1983).

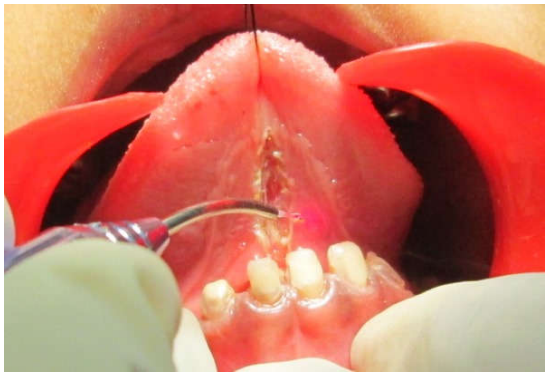
Reinforcing behavior which does not involve self-injury and rewarding good conduct immediately after the treatment is the suggested approach to combat this. Use of nitrous oxide, diazepam, hydroxyzine, chloral hydrate and promethazine, used solo or in combination, come under pharmacological behavior-management techniques (Kamen, 1977 and Davila, 1988). According to Braff *et al*, a longer and higher concentration of nitrous oxide is needed to achieve satisfactory level of sedation (Braff, 1979). Treatment under general anesthesia should be considered for longer procedures and when other options fail. A flow chart given by Delli *et al* suggests the procedures to be carried out before and during the dental appointments for management of autistic child (Figure 1) (Delli, 2013).

Case Report

A 5 year old male autistic child was referred with chief complaint of difficulty in speech. On examination, the patient was diagnosed with ankyloglossia, and was found to be unable to touch the roof of the mouth with his tongue, which prevented him from speaking normally. As the patient was uncooperative and required further treatments such as prophylaxis and restoration, the treatment of choice was decided to be frenectomy to be done using laser under general anesthesia. A soft tissue diode laser was used for the procedure. The frenum was removed completely from the apex to the base. No sutures or wound dressing was needed after the surgery. Post-operative healing was satisfactory and uneventful and patient reported after 2 weeks with increased tongue mobility and normal speech.



Case Picture 2. High Lingual Frenal Attachment



Case Picture 3. Frenectomy done using Soft Tissue Diode Laser

Case Picture 4. Tongue Protrusion following frenectomy

Case Picture 5. Postoperative View

****

Conclusion

Autistic children are to be exposed to a higher frequency of regular medical screening. For this purpose an interdisciplinary approach with the physician might help to manage the autistic child's anxiety during a visit to the dentist. The therapeutic approach for each patient must be individualized. The use of an operatory under general anesthesia is a viable option in case of long appointments with multiple procedures like surgery. The soft tissue laser is a good alternative to conventional scalpel for management of ankyloglossiadue to its obvious advantages.

REFERENCES

American Psychiatric Association. Diagnostic and statistical manual of mental disorders: DSM-IV; 1994: 4th Ed. p 66-71.

Braff, M.H., Nealon, L. 1979. Sedation of the autistic patient for dental procedures. *ASDC J Dent Child*., 46: 404-407.

Davila, J.M., Jensen, O.E. 1988. Behavioral and pharmacological dental management of a patient with autism. *Spec Care Dentist*., 8: 58-60

Delli, K., Reichart, P.A., Bornstein, M.M., Livas, C. 2013. Management of children with autism spectrum disorder in the dental setting: Concerns, behavioural approaches and recommendations. *Med Oral Patol Oral Cir Bucal.,* 1;18 (6):e862-8.

Kamen, S., Skier, I. 1977. Dental management of autistic child. *Spec Care Dentist.,* 44:302-309

Kanner, L. 1943. Autistic disturbances of affective contact. *Nerv Child*., 2:217-50

Lindermann, R., Henson, J.L. 1983. Self-injurious behavior: management for dental treatment. *Spec Care Dentist.* 3:72-76

Mc Donald, R.E., Avery, D.R. 1994. Dentistry for the child and adolescent. 6th ed. St. Louis, Mosby- Year Book, Inc. p 601-11.

Mc Eachin, J.J., Smith, T., Lovasas, O.I. 1993. Long-term outcome for children with autism who received early intensive behavioral treatment. *Am J Ment Retard*., 97: 359-72

Shapira, J., Mann, J., Tamari, I., Mester, R., Knobler, H., Yoeli, Y., Newbrun, E. 1989. Oral health status and dental needs of an autistic population of children and young adults. *Spec Care Dentist.,* 9:38-41

Smith, B., Chung, M.C., Vostanis, P. 1994. The path to care in autism: is it better now? *J Autism Dev Disord*., 24:551-63

Swallow, J.N. 1969. The dental management of autistic children. *Br Dent J.,* 126: 128-31.

Vostanis, P., Smith, B., Chung, M.C., Corbett, J. 1994. Early detection of childhood autism: a review of screening instruments and rating scales. *Child Care Health Dev*., 20: 165-77.