LINGUAL FRENOTOMY IN PATIENT WITH ASPERGER SYNDROME

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ABSTRACT

Asperger Syndrome is characterized by children with normal intelligence level and a degree of impairment of social skills that do not meet the autism criteria. The patient who has this type of pathology needs special care, including dental care. Ankyloglossia or shortening of the free lingual portion is an anatomical condition characterized by the restriction of tongue movement, popularly termed "prey tongue", disrupting phonetics and other functions. The clinical case of the present article refers to a male child, 5 years old, with Asperger's syndrome, and diagnosed with ankyloglossia. Dental planning consisted of a surgical procedure for the release of the lingual frenulum, and other dental treatments. The child attended the sessions of dental treatment accompanied by the mother, showing good behavior during the dental procedures to which he was submitted. The frenotomy had good results and provided the recovery of the position and function of the tongue, providing the necessary movements, favoring the quality of life of the patient.

KEYWORDS: Lingual frenum, surgical procedures, operative, asperger syndrome.

1. INTRODUCTION

Asperger syndrome (AS) is characterized by impairments in social interaction, as well as limited interests and behaviors. Its course of early development is marked by the lack of any clinically significant delay in spoken language or language perception, cognitive development, self-care skills, and curiosity about the environment. Intense circumscribed interests that totally occupy the focus of attention and tendency to speak in monologue, as well as motor incoordination, are typical of the condition but are not necessary for diagnosis[1].

This syndrome was identified in 1944, but was only officially recognized as a diagnostic criterion in DSM-IV in 1994. As a result, many children were misdiagnosed with syndromes such as Autism, Obsessive-Compulsive Disorder, among others[2]. Due to the lack of diagnostic definitions until recently, the prevalence of the condition is unknown, although a prevalence index of 2 to 4 has been reported in 10,000[3]. There is little doubt that the condition is more common in men than in women, with a reported rate of 9 to 1[1]. In recent years, there has been a proliferation of family support associations, organized around the concept of SA, and there are indications that this diagnosis is being made by clinicians much more frequently than it was only a few years ago; there are also indications that SA is also currently functioning as a residual diagnosis given to children with normal intelligence and with a degree of impairment of social skills that do not meet the autism criteria. Possibly the most common use of the term SA is as a synonym or a substitution for autism in individuals with normal or higher IQs[1].

Regarding oral health, the literature indicates that autistic patients present high prevalence of caries and periodontal disease, probably due to the cariogenic diet and difficulties in oral hygiene, common in special patients[4]. Recent studies comparing the deciduous dentition of an autistic child with the dentition of a child considered normal indicate that in the deciduous dentition the caries index is higher in autistic children, but in the permanent dentition the number of caries is similar in both groups[4].

The lingual frenulum is a fibrodense conjunctive fold, occasionally made up of superior fibers of the genio-glossus muscle, which are inserted in the lingual belly, between the apex and the middle third, and in the floor of the mouth, which may be between the lingual or previously displaced to the lower alveolar ridge[5]. Ankyloglossia or shortening of the free lingual portion is an anatomical condition characterized by restriction of tongue movement, which may have a strong impact on its function, also interfering in the shape of the dental arches and their consequent occlusion. This condition occurs in 4-16% of neonates, with a male preference in the proportion of 2.5: 1[6].

The proposed surgical treatment of ankyloglossia is the frenectomy or frenotomy that requires care and attention of the dental surgeon. Fenotomy is a safe,

practical and effective proposal. The surgical procedure consists of local anesthesia with a horizontal incision of the lingual brake, using incision instruments to allow the mobility of the tongue[7].

Thus, this article reports a performance of the dental surgeon in a patient with Aspager Syndrome, whose treatment consisted of behavior management, diagnosis, planning and surgery of lingual frenotomy.

2. CASE REPORT

A 5 - year - old male patient attended the Ingá University Center – UNINGÁ, Dental Clinic, accompanied by her mother, with a complaint of "prey tongue". In the anamnesis, the mother reported that the child had Asperger's syndrome. Clinical examination revealed a deciduous dentition presenting caries on the tooth 55, mesial on the tooth 51, occlusal-distal on the tooth 65, occlusal-mesial on the tooth 75, occlusal-distal on the tooth 74, occlusal on the tooth 85 and a high insertion of the frenulum lingual (Figure 1), popularly termed "prey tongue".

Figure 1. Clinical examination of the lingual frenulum.

Radiographic (panoramic) examination was in normality patterns (Figure 2).

Figure 2. Panoramic radiography.

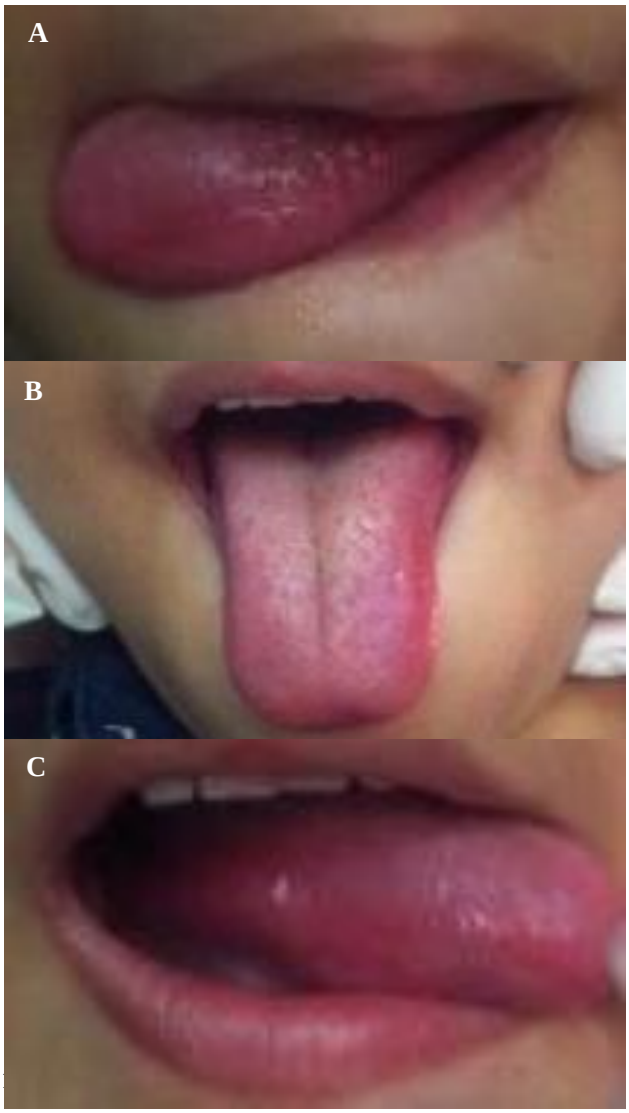
The proposed planning was behavior management, dental prevention, lingual frenotomy surgery and dental restorations. For the surgery, the following protocol was used: preparation of the clinical table (Figure 3), Ophthalmic anesthetic: Tetracaine Hydrochloride 1% and Phenylephrine Hydrochloride 0.1%, infiltrative anesthesia with 3% applied Lidocaine on the ventral side of the tongue, seizure of the lingual brake with tentacle and section with straight-edge scissors.

Figure 3. Surgical instruments surgical table clinic.

There was no need for suturing (Figure 4). During the surgery the child behaved well, collaborating with the procedure.

Figure 4. Immediate postoperative.

Immediately after the surgery, the child performed the tongue movements (Figure 5 A, B and C), revealing the release of the lingual brake. An analgesic medication was prescribed with Paracetamol (1 drop per Kilo) of 4/4 hours for one day. The patient returned after 7 days, observing the cicatrization (Figure 6) and the prognosis was favorable.



Figures 5. Lingual movements immediately after surgery (A, B anf C).

Figure 6. Surgical evaluation after 7 days.

3. DISCUSSION

Klin (2006) 1 reports that possibly the most common use of the term Asperger's Syndrome is as a synonym or substitution for autism in individuals with normal or higher IQs. According to Haddad (2007)[8], among individuals with some type of behavioral change that cause difficulties for dental care, the autistic patients are in a prominent position. Dental treatment requires a careful approach, generally complicated by the urgency situation and aggravated by the characteristics of autism, which makes patients distant, distant and with communication and understanding difficulties. The interaction of the professional team that assists the patient is fundamental to achieve success[9].

The psychological intervention concomitantly with dental treatment has helped some patients to face odontological routines considered as aversive reducing the level of anxiety, usually manifested by individuals with a history of fear or non-collaboration with oral treatment[10]. In some cases, after establishing a bond and conditioning the patient, it is possible to perform dental treatment without sedation[4], a fact that occurred in the presented clinical case.

When evaluating toothbrushing at the home of autistic individuals, Marega (2001)[11] detected problems that made it difficult to close his teeth; nausea; remove the head and move away; inability of the caregiver to perform the brushing steps; excessive use of toothpaste; and the caregiver's impatience to train brushing. Such actions associated with a cariogenic diet cause autistic individuals to present high prevalence of caries and periodontal disease, especially during deciduous dentition[4]. In the presented clinical case it was observed this high prevalence of cariogenic activity due to the difficulty of hygienization reported.

About the low insertion of the lingual brake, ankyloglossia is an abnormality where the brake is fixed in positions very close to the apex of the tongue, limiting the protrusion, retrusion, lateralization and vibration movements, impairing the ability to perform its functions, such as such as pronunciation of certain consonants and lipid diphthongs, as well as difficulty in swallowing and chewing[12].

In the reported clinical case, the frenotomy was performed due to the difficulty in mobility of the tongue, preventing peculiar movements. Studies show that such changes can cause difficulties with social relationships[13].

Regarding surgical technique, Motta & Alencar (2015)[14] mention the use of the tentacánula, instrument that makes the correct positioning of the tongue and reference to the incision. With the use of a straight surgical scissors, the section should be performed in the medial portion of the brake, in a similar way to the case report.

Along with clinical treatments it is important that the autistic patient has the support of the family. Affectivity is a key factor in achieving success in the follow-up of these children, since commitment, dedication, persistence

and family sacrifices are necessary to adjust the social life, the home environment and the routine for the needs and respect the limits that prevent certain changes[15].

4. CONCLUSION

The adequate performance of the dental surgeon in this case of lingual frenotomy in a patient with Asparger syndrome, through appropriate planning, behavior management and surgical treatment, provided the recovery of the position and function of the tongue, and the appropriate movements, favoring quality of life.

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