Clinical Perspective

Adapted or atypical thrusting

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ADAPTED OR ATYPICAL THRUSTING?

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ABSTRACT

Distinguishing between the terms "adapted thrusting" and "atypical thrusting" is not the critical factor in planning treatment for patients demonstrating tongue thrust behavior. Evaluation of factors including age of the patient, breathing pattern, cranio-facial characteristics, head and body posture are important in determining when, and how to provide treatment.

INTRODUCTION

The concept of "adapted thrusting" is not new. In examining authors such as Ballard (1959; 1965), Frankel (1980), Nilne and Cleall (1970), Subtelny and Sakuda (1964), Tulley (1969) and Van der Linden (1990), it can be observed that among these authors there is an understanding that the interposition of the tongue is a consequence of an abnormal morphologic relationship. Therefore, it is an adaptive phenomenon.

The author does not intend to develop the idea that the designation of thrusting as "atypical" or "adapted" is the most important topic of this article. In fact, it does not make a difference if thrusting is called "atypical thrusting" as in the case of the patient with interposition of the tongue at the moment of swallowing, or if thrusting is called "adapted" justifying the interposition due to an alteration shown by the patient, for example, as an anterior open bite. The important consideration is to know, if the orofacial myologist should or should not work on this area to correct the detected projection.

TREATMENT CONSIDERATIONS

Many authors consider it normal to project the tongue in deciduous and mixed dentition. It must be understood that this pseudo-alteration is somewhat transitory and not pathological. It is characteristic of a stage of the normal development of swallowing. Therefore, before any kind of therapy, therapists should always remember normality. Normality has variations according to age, and is also dependent on the shape found in the anatomical characteristics. Even in a normal occlusion, it is observed through videofluoroscopic studies that

there are many supporting regions for the tongue in the oral phase of swallowing. It is important to consider what should or should not be treated.

The swallowing pattern of an adult is also not uniform. The variation is minimal, but there are differences which are probably adaptive. That is, there are adjustments to compensate for possible differences in each face and consequently, of the oral cavity.

The question therapists should ask themselves is whether or not treatment should be initiated, and if so, when to start treatment. Before treating the swallowing itself, it is necessary to observe if there are other functions to be evaluated. If other functions are altered and show possibilities to be modified with treatment, they must be addressed before working on swallowing.

When breathing is oral, it is the function that most alters the positioning of the tongue. The tongue changes its position when there are anterior and posterior blockages of the air passage. The tongue takes a position downwards and forwards to permit the passage of air. In an oral breathing case, the change is not only the fact that the tongue occupies the mandibular space (inferior to the tongue) and does not make any contact with the palate, but also that the mandible itself moves downward and forward. However, the tongue will certainly be positioned in a more anterior way, and frequently, it is between the anterior incisive teeth. This compensating posture of the tongue occurs to guarantee function of the breathing process. Therefore, it is of no benefit for the orofacial myologist to treat only the positioning of the tongue. The initial step is to refer the patient to an otorhinolaryngologist. When certainty has been established that it is possible to achieve proper breathing through the superior

airways, the orofacial myologist should train the patient to use the nostrils for proper breathing.

In general, the change of the breathing habit itself can be sufficient for the tongue to achieve an adequate position without the necessity of direct work on this structure. If it is observed that after a re-establishment of nasal breathing, the tongue persists in being improperly positioned, then intervention should be provided by positioning the tongue correctly.

In addition to the mode of breathing, it is important to observe possible inadequate habits presented by the patient. As an example, if there is thumb sucking, the tongue will be improperly positioned due to this habit that must be eliminated.

The orofacial myologist needs to notice that when a referral is received regarding a patient complaining about "atypical thrusting", the exam should not be limited to a simple observation of seeing the projection of the tongue between the teeth or against them. First of all, the possible reason for these deviations should be identified so that treatment may be directed to the causes and not the pure and simple consequence of the tongue projection.

The orofacial myologist should observe if the facial typology and the occlusion allow the tongue to remain in the correct position in a comfortable way. If there is an anterior open bite, or if the facial pattern is very long, rarely will the tongue be found well positioned. In Angle's Class III, it can be observed that the tongue will occupy the inferior arch. During dental changes, the anterior projection is very frequently due to the absence of the anterior teeth. Next, the head posture should be observed. When a patient maintains head posture that is inclined backwards, forwards, and/or sideways, the positioning of the tongue will be more or less altered depending on the degree of deviation in the positioning of the head. In the case of bone alterations in the face which cause asymmetries, it is possible that an improper positioning of the tongue will exist because of the alteration of the internal space of the oral cavity.

After the observation of the shape of the face, the type of arch, and head and neck positioning, breathing function should be observed. When there are breathing problems there is a strong tendency for improper positioning of the tongue. The tongue will try to fit in a way that it permits breathing and, consequently, life itself.

Tonus of the tongue is another important factor. When altered, tonus of the

tongue can also modify the positioning and the mobility of the tongue. Tonus and positioning can be worked on at the same time.

It is useful to observe the habits and patterns of the family. Although, these are factors of less influence. It is interesting to observe that there is a natural tendency of people to imitate one another in the way they speak, walk, stand, eat, etc., especially when they live close to each other, or when there is an affectionate relationship between them. Talking with the parents, the brothers and sisters, or with other people close to the patient is a way to find elements indicative of the postural problems or alterations of functions that may be the result of imitation.

Considering age, occlusion, body posture, tonus, habits, other oral functions, and possible imitative behaviors can point to the kind of therapy that may be suitable to correct tongue position and tongue function, without having to work directly on it. As other aspects are improved the tongue may find a more adequate place without the need of direct intervention.

If the orofacial myologist concludes after examination that the patient's inadequate posture of the tongue and the tongue thrusting are only from an inadequate habit and not consequences of previously mentioned factors such as age, direct therapy needs to be initiated. That is the repositioning of the tongue in the papilla not only for posture, but also the performing of the oral functions. It may be simple because if there is not a mechanical impairment, and if there is cooperation of the patient, correction will be rapid. People are able to change habits quickly when interested in making this change, and if they believe there will be a benefit. The orofacial myologist should teach the patient how to make these changes, and emphasize the importance of the changes to the patient. The orofacial myologist should convince the patient that such changes are important for the balance of the stomatognathic system.

On the contrary, if the alteration of the deglutition is due to other alterations, the orofacial myologist should discover which problems are causing the swallowing disorder and treat them beforehand. If necessary, the orofacial myologist must refer the patient prior to therapy to other professionals such as the orthodontist - in the case of occlusion alteration, or the orthorhinolaryngologist - in the case of breathing alterations.

CONCLUSIONS

The aim of this article is to reflect on aspects of swallowing which have been solidified in our clinic. It is not to change the terms "adapted thrusting" nor "atypical thrusting". What has been observed is that all swallowing, not occurring in a determined way is considered a pattern, and has been classified as atypical. This works even when we arrive at the conclusion that there are no other means of modification. This occurs because the habit of swallowing does not modify in the end since the form of occlusion may impede correct swallowing.

We want to propose an evaluation and a diagnosis, which may lead to more meaningful treatment, more objective and more adequate to

the characteristics of the patient. When the conditions are not favorable, we will not insist in wasting our precious time, which could be used for another type of therapy, that may be more appropriate. Of course the treatment of any condition will always be beneficial, but the final expectations must be adjusted to the real possibilities of the individual.

What kind of term should be used? "Atypical" or "adapted" thrusting, it does not matter. What matters is to know that the tongue adapts itself to the shape of the anatomical features, that other functions interfere in its positioning, and age brings modifications. It is important to know that each patient is an individual and in being so, that standardized treatments, with equal therapy to everybody, should be rethought.

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