

## Editorial

# INTERNATIONAL OROFACIAL MOTRICITY DAY

## “Tongue-tie, affected orofacial functions”

### *DIA MUNDIAL DA MOTRICIDADE OROFACIAL*

### *“Língua presa, funções orofaciais prejudicadas”*

Franklin Susanibar<sup>(1)</sup>

Ricardo Santos<sup>(2)</sup>

Irene Marchesan<sup>(3)</sup>

<sup>(1)</sup> Comunidad de Motricidad Orofacial Latinoamericana (CMOL), Lima, Perú.

<sup>(2)</sup> Sociedade Portuguesa de Terapia da Fala (SPTF), Lisboa, Portugal.

<sup>(3)</sup> Sociedade Brasileira de Fonoaudiologia (SBFa), São Paulo, SP, Brasil.

The human tongue is one of the most important structures of the stomatognathic system, being part of all the orofacial functions like suction, mastication, deglutition, breathing and speech.

Anatomically analyzed, the tongue is a muscular structure covered by mucosa, presenting, in its face ventral, a fold of mucous membrane named lingual frenum<sup>1-2</sup>. The human tongue is an extremely complex organ, and it has still being studied. The evidences up to now lead us to the comprehension of some particularities of this structure that nobody had some years ago. Nowadays, the human tongue is considered a muscular hydrostat, and, because of that, its volume is constant and it has its own support through its intrinsic muscle and a capacity of accomplishing a great variety of movements much bigger than an skeletal muscular system<sup>3-4</sup>. Besides, the human tongue more muscular fibers type I in individuals that had already developed speech; the quantity of fibers varies according to each tongue's muscle function<sup>5</sup>. It is also said that extrinsic muscles help the tongue to adjust in the oral cavity. If the tongue is positioned further behind, it will partial or totally occlude the pharyngeal cavity. The pharynx obstruction by the tongue is one of the causes of obstructive sleep apnea<sup>3</sup>.

This knowledge helped the professionals to understand better this structure, making easier the evaluation, as well as the alterations diagnosis.

In this context, one of the structures that became important in the last decades and have been studied very carefully is the lingual frenum.

The lingual frenum is a small fold of mucous membrane that connects the tongue to the mouth floor<sup>1-2</sup>. This structure is made of mucous and covered by a stratified squamous epithelium, which cells of the most superficial layer are nucleate and with some keratins granules at the cytoplasm. These characteristics are common to all the oral cavity mucosa<sup>6</sup>. However, there are some features in the different types of frenum. In ankyloglossy, the lingual frenum has collagen fibers type I, muscle fibers, as well as elastic tissue grouped in beams and close to the lining epithelium. This histological constitution doesn't allow that the frenum break off alone or to be stretched through exercises<sup>7</sup>.

Based on embryology studies, Knox<sup>8</sup> says that ankyloglossy is an oral congenital anomaly that occurs when tissue residues that should have undergone apoptosis during its embryonic development, remain in the tongue inferior side, narrowing its movements. When a baby is born with altered lingual frenum, this alteration

remains for the rest of its life because the frenum doesn't modify its measure or its fixation during life<sup>9</sup>.

When the frenum is altered, it makes difficult the tongue mobility, especially from the top and, consequently, many times, compromise the following functions: suction, speech, mastication, oral hygiene, deglutition and breathing<sup>10-15</sup>.

To determine if the altered frenum is compromising or not the functions, it is important to evaluate the frenum anatomic variations, as well as the tongue movements during these functions. A set of characteristics lead to the diagnosis of lingual frenum alterations. That's why it is so important to elaborate and validate specific protocols to evaluate this structure in Orofacial Motricity area<sup>16-19</sup>.

Orofacial Motricity is the field of Speech Language Pathology that is responsible for the study, research, prevention, evaluation, development, habilitation, improvement and rehabilitation of the congenital or acquired alterations of the orofacial myofunctional and cervical system, as well as the functions of suction, mastication, deglutition, breathing and speech since the gestational period up to the natural process of aging<sup>20-21</sup>.

Therefore, the Orofacial Motricity specialist is capable of evaluating the lingual frenum morphology as well as the orofacial functions. If the functions are compromised because of the limitation of the tongue movements caused by the altered lingual frenum, the specialist couldn't rehabilitate the functions if the lingual frenum are not free, since it doesn't modify its size and length through exercises<sup>7,22</sup>.

For this matter, the international and national coordinators of the INTERNATIONAL OROFACIAL MOTRICITY DAY decided to suggest for 2017 the theme: "Tongue-tie, affected orofacial functions".

In 2016, the chosen theme was: "**Breath: Have you thought?**"<sup>23</sup>. In February, there was a great participation of professionals, societies, entities and universities from Argentina, Australia, Brazil, Chile, Colombia, Ecuador, France, Greece, Italy, Japan, México, Peru, Portugal, Russia, Spain, United States and Venezuela. All the activities were registered at <http://www.womsd.com/><sup>24</sup>.

We hope that many people, institutions and countries join to the dissemination of the International Orofacial Motricity Day in 2017.

This theme: "**Tongue-tie, affected orofacial functions**", we have the following purposes:

- To make the population aware about the importance of the Orofacial Motricity professional's work: to evaluate and to orientate the people with altered lingual frenum.
- To inform about the importance of the diagnosis and an early treatment of the lingual frenum alterations
- To make both population and Orofacial Motricity professionals and other ones aware that the lingual frenum can't be stretched or modified through exercises
- To encourage the need of a transdisciplinary work to guide properly the patient with altered lingual frenum.

The invitation is done! This day success depends on the participation of each professional that works in this area!

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