

EDITORIAL

Rhinologic pathology and voice disorders

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Communication is the engine of all areas of social activities. Our voice is our identity. Of the many meanings of voice in our lives, perhaps the most important is that it lies at the very heart of our personal identity, as a "footprint" implanted in our consciousness.

It is a very fascinating process to see how the language and speech have evolved/evolve from the sounds produced by living creatures to human phonation. The animals produce sounds for defence and offense, to call for food and migration, for keeping in touch when out of sight, for attracting or repulsing the opposite sex. Human phonation is linked to much more than the intellectual act of speech. The human voice serves similar sublinguistic purposes of survival.

The larynx is situated at the crossroads of life, a barometer of our physical and mental health, an airway through which oxygen flows and a valve that protects the lungs from ingestion of foreign substances. At the same time, the larynx is an important escape valve for our emotions, which is essential to the maintenance of our psychological equilibrium.

Nowadays, the study of voice comes from many specialties including, but not limited to, otolaryngology, psychology, psychiatry, neurology, genetics, molecular biology, bioengineering, linguistics, theatre and music.

Everyone agrees that breathing is of vital importance as regards the voice. So, we can say that the rhinologic pathology interferes with the aesthetics of speech and can seriously compromise intelligibility, producing serious psychological, educational and occupational consequences.

The nasal resonatory pathology has the same consequences in medical and speech-language pathology practice as dysphonia from the laryngeal disease.

Nasal resonatory disorders can be classified into four main types:

- hypernasality
- hyponasality
- mixed nasality
- resonance imbalance

Hypernasality or "rhinolalia aperta" is defined as excess resonance of vowels and voice consonants within the nasal cavities. This phenomenon is explained on the basis of an open coupling between the oral and nasal cavities, due to incomplete closure of the hard palate and /or velopharyngeal sphincter.

The etiology of hypernasality are anatomic defects, such as cleft of the hard and soft palate, neurologic disease producing paralysis of the velopharyngeal musculature, obstructive tonsils, nasal structural deviations. Hypernasality is also common in persons with severe, congenital sensorineural hearing loss owing to poor auditory feedback.

Hyponasality, also known as "rhinolalia clausa", is defined as diminution or absence of normal resonance of the nasal semivowels "m", "n" and loss of normal assimilation nasality. The anatomic-physiologic basis is over closure or obstruction between the oral and nasal cavities. Hyponasality can be classified in two subtypes:

- "rhinolalia clausa posterior" due to an obstruction in the posterior part of the nasal cavities or the nasopharynx, when the nasal phonemes "m", "n" are heard as oral stops "b", "d";
- "rhinolalia clausa anterior" due to an obstruction in the anterior region of the nasal cavities, when all the vowels are produced with a hollow-sounding resonance.

Causes of hyponasality are space-occupying lesions such as tumors, nasal polyps, adenoid hypertrophy,

inflammations of the tissue and deviation of the nasal septum.

Mixed nasality is synonym with “rhinolalia mixta” and it is defined as simultaneous velopharyngeal insufficiency and nasal obstruction.

Resonance imbalance appears in persons with hyperfunctional voice disorders and the voice sounds throaty and thin.

In conclusion, we can say that the management of voice disorders must take into account the nasal pathology, which can interfere with the aesthetics of speech.

Moreover, resonance balance is the focus of many voice therapy techniques designed to improve vocal quality and reduce laryngeal tension.