Tinnitus is a common but very heterogeneous symptom. It is defined as the perception of a sound by an individual in the absence of an external source or stimuli from the external environment. There are various causes for tinnitus, which complicates its understanding and study. There is also a great difference between individuals who present this symptom: tinnitus can be unilateral or bilateral, chronic or acute, associated with a specific medical condition or of unknown origin. Furthermore, individuals present different levels of psychological distress and intensity of tinnitus signal [1-3].

Tinnitus affects approximately 15% of the population worldwide. In 15–20% of cases, tinnitus affects quality of life, with repercussions involving sleep habits, concentration, emotional stability, and social activities, even leading to disability [1,2]. Previous studies have tried to find a connection between patients who suffered from tinnitus and suicide. There was a high prevalence of psychiatric morbidity, in particular depression (70%) in these patients [4].

It has been often hypothesized that hearing loss is the basis for tinnitus development but not all tinnitus sufferers have an audiological objective perceptive hearing loss. Also, many patients with hearing loss do not suffer from this symptom. Taking this into consideration, tinnitus seems to be a far more complex phenomenon associated with additional processes like fear, attention and cognition, showing involvement of limbic and prefrontal areas. Many non-auditory structures including the hippocampus and amygdala as auditory structures such as the dorsal cochlear nucleus, the inferior colliculus and the auditory cortex are associated with tinnitus. Recent evidence showed that subcallosal structures are responsible for a noise cancellation system and its failure is attributed to cause chronic tinnitus [5].

Many studies tried to evaluate the real impact of this symptom on patients’ lives, using psychometric tests like the Tinnitus handicap inventory (THI), Tinnitus reaction questionnaire (TRQ), Tinnitus functional index (TFI); and a Visual analog scale (VAS) for tinnitus annoyance. Also, audiometric tests were performed to try to establish the relationship between tinnitus and hyperacusis. A recent study from Fernandes, et al. aimed to assess the relationship of tinnitus with the presence of stapedial reflex and the phenomenon of recruitment, but no correlation was found [6,7].

The treatment of tinnitus ranges from medication to surgery, such as stapedotomy and cochlear implants. The non-pharmacological treatments include Transcranial Direct Current Stimulation, cognitive behavioral therapy, Tinnitus Retraining Therapy, acupuncture, hypnoses, among others. The tinnitus with no organic cause established has no consensus when it comes to treatment. The psychological therapy procedures also could reach only occasionally significant results which were not constant over time. A combination of Tinnitus Retraining Therapy with a group therapy seems to have the best results. Neither the diagnostic procedures nor the therapeutic methods or the individual therapies reach a usual scientific level in medicine. The secondary tinnitus, such as the one caused by otosclerosis, can be treated by treating the specific medical condition [8].

The literature concerning the pharmacotherapy of tinnitus is vast. Antidepressants are commonly used in pharmacological protocols for the management of tinnitus, especially the tricyclic group. Other groups of medication include antiarrhythmics, anticonvulsants, Anxiolytics, glutamate receptor antagonists, herbal products, vitamins, minerals, nimodipine, furosemide and others. There is no currently FDA approved drug on the Market to the specific treatment of tinnitus. Most of the drugs are limited to the treatment of comorbidities such as depression, anxiety, or insomnia. Because of its prevalence and its impact in quality of life, even a drug with a small but effective response can achieve huge therapeutic importance [9,10].

In the last few years, there have been significant advances in the study of tinnitus, although the number of studies and the pathophysiology is better understood, tinnitus remains a challenging symptom with a complex management. So, it is important that journals provide space to spread the information regarding this subject, allowing researchers to perform new studies and access new discoveries, which will help physicians around the world. The “Journal of Otolaryngology and Reconstructive Surgery (JORS)” understands this need and comes up with this proposal. JORS allows researchers to exchange information leading to discoveries in the area of ENT and reconstructive surgery. Maybe, with this opening, tinnitus will not be such a challenging complaint in the next few years.

References

7. Fernandes FL, Guimarães AC, de Carvalho GM, Mezzalira R, Stoler G,

