Psychiatria Danubina, 2013; Vol. 25, Suppl. 2, pp 102-104 *Conference paper*

TINNITUS AND PSYCHIATRIC COMORBIDITIES IN LIAISON PSYCHIATRY ANALYSIS OF THREE YEARS IN AN AUDIOPHONOLOGY CENTRE

Denis Jacques[1,3,5], Yves Nozeret[4], Nicolas Zdanowicz[1], Christine Reynaert[1,5], Pierre Garin[2,3] & Chantal Gilain[2,3]

[1]Psychosomatic Medicine Department, Catholic University of Louvain, University Hospital Centre of Mont-Godinne-Dinant, Yvoir, Belgium
[2]ENT Department, Catholic University of Louvain, University Hospital Centre of Mont-Godinne-Dinant, Yvoir, Belgium
[3]Audiophonology Centre, Catholic University of Louvain, University Hospital Centre of Mont-Godinne-Dinant, Yvoir, Belgium
[4]Grand Hôpital de Charleroi, site Sainte Thérèse, psychiatric unit, Catholic University of Louvain, University Hospital Centre of Mont-Godinne-Dinant, Yvoir, Belgium
[5]Catholic University of Louvain, Research Institute for Health and Society, Catholic University of Louvain, University Hospital Centre of Mont-Godinne-Dinant, Yvoir, Belgium

SUMMARY

Introduction: *Patients who are suffering from tinnitus are rarely directly referred to an audiophonology centre. Often, they have tried several medications and met with several doctors. Sometimes, they are also referred too quickly to a psychiatrist without a complete ENT assessment. Nevertheless, they frequently develop psychiatric comorbidities in regard to the tinnitus.*

Subject and methods: *On the basis of structured interviews with the "Mini International Neuropsychiatric Interview" and on a review of records, we assessed the associated psychiatric diagnoses in patients who consulted for tinnitus as their main complaint at the audiophonology centre from the University Hospital Centre of Mont-Godinne-Dinant between 2009 and 2012*

Results: *Of the 80 patients who consulted for tinnitus, 28% suffered from a major depressive disorder, 27.5% from a somatoform disorder, 23.7% from sleep disorder, 22.5% from an anxiety disorder and 16% from alcoholic dependence.*

Discussion: *On the basis of these results, we developed clinical considerations concerning the treatment approach and options for patients suffering from tinnitus with psychiatric comorbidities.*

Conclusion: *The interdisciplinary approach (ENT and liaison psychiatry) in an audiophonology centre seems to be a factor for better treatment adherence for patients with severe and chronic tinnitus.*

Key words: *tinnitus - psychiatric comorbidities - liaison psychiatry - psychosomatic*

* * * * *

INTRODUCTION

Tinnitus is a subjective auditory sensation not linked to a sound generated by a vibration from outside the body and it is inaudible to the sufferer's entourage. The resulting sound may resemble a buzzing, a hissing or even a tinkling felt in the skull or in the ear, on one side or on both. It is estimated that chronic tinnitus (during for more than three months) affects 10 to 15% of the population, of which 20% will require clinical intervention. Men are more affected than women. (Henry et al. 2005)

An assessment and multidisciplinary care, E.N.T. and psychiatry are currently clearly recommended (Zirke et al. 2012). In practice, patients with chronic disabling tinnitus are rarely referred from the outset to a multidisciplinary audiophonology centre. After consulting sometimes several doctors, the feeling of helplessness towards the problem is often reinforced in some patients.

It also happens that patients are too quickly referred to a psychiatrist without a complete ENT assessment being carried out. Overall, medical training seems to be flawed on this issue with, as a consequence, a lack of identification of the problem and slow ineffective therapeutic orientation.

For a long time there was a lack of valid practice standards for the clinical management of tinnitus. (Henry et al. 2005) The vast heterogeneity of the different types of tinnitus (Landgrebe et al. 2010) is the basis of the difficulty in achieving a standardization. (Langguth et al. 2011)

Nevertheless, a consensus is emerging and different levels of assessment and intervention are becoming systematized. The two central aspects of the treatment are the "Tinnitus Retraining Therapy" (hearing aids and/or sound generators), which is the acoustic aspect of the treatment and an accompanying psycho-social care that can range from counselling and psycho-education up to sustained psychotherapeutic care. The impact of the psychological and socio-demographic aspects on the severity of the tinnitus is highlighted (Milerova et al. 2013).

The cognitive-behavioural approach to the tinnitus problematic has been well studied with some results being made (Kreuzer et al. 2013).

Our article will concentrate on a clinical reflection on the role that liaison psychiatry and patients' psychosomatic approach can play with tinnitus within the audiophonology centre.

In Belgium, multidisciplinary audiophonology centres are predominantly tied to university hospitals and linked to health insurance approval.

The meeting with the centre's psychiatrist or psychologist needs to become systematic from the start of the multidisciplinary assessment. This first meeting has as its aim, on the one hand, a diagnostic evaluation of the psychiatric patient and on the other hand, psycho-education on the psychosomatic dimension of tinnitus.

First of all the patient is sensitized to the physiological reality of tinnitus with the metaphor of "the claw on the disk" somewhere on the journey of the auditory pathway.

Then, the emphasis is placed on the modulation pathways of auditory perceptions. Just like pain, tinnitus is a subjective experience that cannot be measured objectively and which can only be based on the description that the patient gives. The role of attentional processes in the perceived intensity of tinnitus is well described (Trenado et al. 2007) and is central to the psychotherapeutic approach.

Thus a depressed patient who has lost all interest in activities that might keep his mind occupied will be more inclined to focus on his internal reality and have an amplified perception of tinnitus.

Also it can be seen that an anxious patient with a certain behavioural hyperactivity will lose capacity to concentrate which will also affect the perception of tinnitus.

In our opinion, hypochondriacal traits characterized by hyper vigilance to any internal sensory event are also considered to be an aggravating factor.

The first consultation will also try to downplay the "magical expectations" that the patient might have towards his rehabilitation by stressing the importance of his personal involvement and on the concept of progressive adaptation at the auditory level.

If the evaluation does not reveal any significant psychiatric disorders, a consultation is proposed three months after the start of the rehabilitation with the possibility for the patient to request a consultation sooner if this proves necessary.

In case of an identified psychiatric disorder, monthly monitoring during rehabilitation is then proposed with the possibility of continuing psychiatric care if the hearing rehabilitation were to terminate.

Participation in a relaxation group (Jacobson or Mindfulness technique) is also available to the patient.

Based on our audiophonology centre's first three years of operation, by an observational study, we have tried to identify and quantify the major psychiatric comorbidities seen in patients suffering from chronic tinnitus.

SUBJECTS AND METHODS

On the basis of structured interviews with the "Mini International Neuropsychiatric Interview" and on a review of records, we assessed the associated psychiatric diagnoses in patients who consulted for tinnitus at the audiophonology centre of the University Hospital Centre of Mont-Godinne-Dinant between 2009 and 2012.

RESULTS

Of the 127 patients who consulted the audiophonology centre, 80 had chronic tinnitus. For these 80 patients, the case review diagnostics highlight that:

- 28% met the criteria for a MAJOR DEPRESSIVE DISORDER (n=23);
- 27.5% met the criteria for SOMATOFORM DISORDER (n=22);
- 23.75% met the criteria for SLEEP DISORDER (n=19);
- 22.5% met the criteria for ANXIETY DISORDERS (n=18)
  - Panic Disorder (n=5)
  - Obsessive compulsive disorder (n=2)
  - Post Traumatic Stress (n=5)
  - Hypochondria (n=5)
  - Generalized Anxiety Disorder (n=1);
- 16% Met the criteria for an ALCOHOL DEPENDENCE (n=13);
- 3.75% met the criteria for ADJUSTMENT DISORDER (n=3);
- 2.5% met the criteria for BIPOLAR DISORDER (n=2).

DISCUSSION

Despite the potential bias of our small sample and just on an observational basis, our results correspond to what is reported in the literature including the high incidence of somatoform disorders (Zirke et al. 2012) as well as depressive and anxiety disorders (Belli et al. 2012). This is also the case for sleep disorders (Crönlein et al. 2007).

By contrast, we note a significant incidence of alcohol dependence which is not observed in other studies.

Our observational approach does not allow us to address the concept of causality of the disorders and we should introduce additional more precise criteria. It has been demonstrated for depression that it is not always a consequence of tinnitus but that the interactions between tinnitus and depression are complex and intertwined (Langguth et al. 2011)

The same complex interaction problem can be assumed to exist between tinnitus and alcohol consumption.

The results confirm the need for a psychiatric approach in the evaluation of patients with chronic tinnitus.

In an effort to standardize the assessment of tinnitus (Landgrebe et al. 2011), the recommendations are consistent with the development of valid psychiatric disorder screening tools (Zirke et al. 2012) for audiologists (Salviati et al. 2012).

In the concepts of the approach by levels of progressive intervention (Henry et al. 2005) as in the concept of screening for quality of life impairment (Harter et al. 2004) the idea is to refer them to a psychologist or psychiatrist as the next step.

On the contrary we decided that the psychiatric evaluation should be systematic and on the front line in parallel with the audiological assessment within our audiophonology centre.

Beyond the screening function, this psychiatric care configuration allows for better prevention, patient detection from the outset from the disorder's psychosomatic dimension and a more complete offering of therapeutic approaches.

This integrated approach avoids the compartmentalisation of specialities which can sometimes enhance dissociative processes in some patients and contributed to de-stigmatize the psychiatric approach by making mental health care more accessible.

We have also found that we had to develop more precise selection criteria concerning indications for participation in the relaxation or Mindfulness groups. Although this type of approach has already shown an interest (Kreuzer et al. 2012), we have been faced with the problem that the relaxation sensitized some patients by increasing the perception of their tinnitus.

CONCLUSION

Based on a retrospective observational study, we saw a high frequency of somatoform, depression, anxiety and sleep disorders in patients with chronic tinnitus. Our results also draw strict attention to the problem of alcohol dependence which deserves further investigation.

In the systematization process of tinnitus treatment, we maintain the importance of an initial psychiatric evaluation integrated from the beginning of care within an audiophonology centre. A more thorough analysis of our results based on a categorization of the different types of tinnitus would lead to a better orientation of psychiatric care. Protocols for prospective research on the criteria indicating the need for participation in a relaxation or Mindfulness group as well as their results needs to be further developed.

Correspondence:

Denis Jacques, MD
University Clinics of Mont-Godinne Psychosomatic unit
5530 Yvoir, Belgium
E-mail: denis.jacques@uclouvain.be

Acknowledgements: None.

Conflict of interest: None to declare.

References

1. *Belli H, Belli S, Oktay M, & Ural C: Psychopathological dimensions of tinnitus and psychopharmacologic approaches in its treatment. General Hospital Psychiatry 2012; 34:282-289.*
2. *Crönlein T, Langguth B, Geisler P, & Hajak G: Tinnitus and insomnia. Progress In Brain Research 2007; 166:227-233.*
3. *Henry J, Schechter M, Loovis C, Zaugg T, Kaelin C, & Montero M: Clinical management of tinnitus using a "progressive intervention" approach. Journal Of Rehabilitation Research And Development 2005; 42(Suppl 2):95-116.*
4. *Kreuzer P, Goetz M, Holl M, Schecklmann M, Landgrebe M, Staudinger S, & Langguth B: Mindfulness-and body-psychotherapy-based group treatment of chronic tinnitus: a randomized controlled pilot study. BMC Complementary And Alternative Medicine 2012; 12:235.*
5. *Kreuzer P, Vielsmeier V, & Langguth B: Chronic tinnitus: an interdisciplinary challenge. Deutsches Ärzteblatt International 2013; 110:278-284.*
6. *Landgrebe M, Zeman F, Koller M, Eberl Y, Mohr M, Reiter J, & Langguth B: The Tinnitus Research Initiative (TRI) database: a new approach for delineation of tinnitus subtypes and generation of predictors for treatment outcome. BMC Medical Informatics And Decision Making 2010; 10:42.*
7. *Langguth B, Landgrebe M, Kleinjung T, Sand G, & Hajak G: Tinnitus and depression. The World Journal Of Biological Psychiatry: The Official Journal Of The World Federation Of Societies Of Biological Psychiatry 2011; 12:489-500.*
8. *Milerová J, Anders M, Dvořák T, Sand P, Königer S, & Langguth B: The influence of psychological factors on tinnitus severity. General Hospital Psychiatry 2013; Apr 18.*
9. *Salviati M, Macrì F, Terlizzi S, Melcore C, Provenzano A, Capparelli E, & Cianfrone G: The Tinnitus Handicap Inventory as a Screening Test for Psychiatric Comorbidity in Patients with Tinnitus. Psychosomatics 2012; Dec 6.*
10. *Trenado C, Haab L, & Strauss D: Modeling neural correlates of auditory attention in evoked potentials using corticothalamic feedback dynamics. Conference Proceedings: Annual International Conference Of The IEEE Engineering In Medicine And Biology Society 2007; 2007:4281-4284.*
11. *Zirke N, Seydel C, Szczepek A, Olze H, Haupt H, & Mazurek B: Psychological comorbidity in patients with chronic tinnitus: analysis and comparison with chronic pain, asthma or atopic dermatitis patients. Quality Of Life Research: An International Journal Of Quality Of Life Aspects Of Treatment, Care And Rehabilitation 2013; 22:263-272.*