

The Relationship between Subjective Tinnitus and Sleep

1. University of Iowa Hospitals and Clinics, Iowa City, IA, USA

2. China Medical University Hospital, Taichung, Taiwan

Tang-Chuan Wang^{1,2}, Hyung Jin Jun¹, Richard S. Tyler¹,

Objective: The purpose of this study is to find out what factors of tinnitus related with sleep disturbance. And find difference between tinnitus patient with disturbed sleep and tinnitus patient without disturbed sleep.

Methods: We surveyed 200 people who have tinnitus and tinnitus affect their daily function. History taking and questionnaire were taken. There are two groups: tinnitus with disturbed sleep and tinnitus without disturbed sleep. People who answered they had other sleep disorder were excluded, such as periodic leg movement syndrome or sleep apnea. Tinnitus handicap questionnaire, tinnitus activity questionnaire, and meaning of life questionnaire were used. Patients took pure tone audiometry, tinnitus loudness and pitch matching. Finally, we compared tinnitus patient with sleep disturbance and tinnitus patient without sleep disturbance.

Results: Thirty nine patients complained about sleep disturbance among 200 subjects. The patients had same answers on tinnitus activity questionnaire and tinnitus handicap questionnaire. Thresholds of pure tone audiometry and severity of sleep disturbance showed no relation. Questionnaire studies indicated that sleep disturbance is one of the most important aspects of tinnitus complaint. Severe sleep disturbance is correlated with a higher percentage of the patients whose tinnitus began within 2 years.

Conclusion: Sleep disturbance is one of the most important aspects of tinnitus complaint. The patients with sleep disturbance should be ruled out tinnitus by physicians.