

HUBUNGAN FREKUENSI, INTENSITAS, DAN ONSET TINITUS SUBYEKTIF DENGAN KUALITAS HIDUP PASIEN PENDERITA DIABETES MELITUS

INTISARI

Latar Belakang: Tinitus subyektif adalah suatu persepsi pendengaran yang dialami oleh 30% populasi orang dewasa di dunia. Kualitas hidup penderita tinitus berkaitan dengan intensitas, frekuensi, dan onset tinitus. Beberapa kuesioner telah dikembangkan untuk mengidentifikasi derajat keparahan tinitus dan kualitas hidup penderita. Salah satu komorbiditas yang berkorelasi signifikan dengan kejadian tinitus adalah diabetes melitus.

Tujuan Penelitian: Untuk menilai hubungan frekuensi, intensitas, dan onset tinitus dengan kualitas hidup pada pasien diabetes melitus yang menderita tinitus subyektif.

Metode: Penelitian ini adalah penelitian observasional analitik dengan desain studi potong lintang yang dilakukan terhadap pasien diabetes melitus dengan tinitus subyektif yang berobat ke poliklinik RSUP Dr. Sardjito pada periode Februari hingga September 2021. Frekuensi, intensitas, dan onset tinitus dinilai dengan audiometri nada murni dan anamnesis. Kuesioner *Tinitus Handicap Inventory* (THI) berbahasa Indonesia digunakan untuk menilai kualitas hidup. Uji Mann Whitney digunakan untuk analisis bivariat dan uji regresi linier untuk analisis multivariat. Analisis statistik dilakukan dengan nilai signifikansi $p < 0,05$ dan interval kepercayaan (IK) 95%.

Hasil: Sebanyak 37 subjek diinklusi dalam penelitian ini. Sebagian besar subjek laki-laki (67,6%) dengan median usia 54 tahun. Sebanyak 40,5% pasien tergolong memiliki kualitas hidup sedang (40.5%) dengan median skor THI sebesar 39. Karakteristik derajat keparahan tinitus yang diderita mayoritas subjek adalah frekuensi ≥ 2.000 Hz (83,8%), intensitas ≥ 30 dB (86,5%), dan onset < 5 tahun (86,5%). Terdapat hubungan signifikan antara frekuensi ($p = 0,003$) dan intensitas ($p = 0,001$) tinitus dengan kualitas hidup pasien. Sementara onset tinitus tidak berhubungan secara statistik dengan kualitas hidup ($p = 0,190$). Frekuensi dan intensitas tinitus dapat meningkatkan skor THI masing-masing sebesar 17,44 (IK 95% = 6,54–28,35) dan 21,88 (IK 95% = 10,38–33,38).

Kesimpulan: Faktor yang signifikan berhubungan dengan kualitas hidup pada pasien diabetes melitus dengan tinitus subyektif adalah frekuensi dan intensitas tinitus.

Kata Kunci: tinitus subyektif, diabetes melitus, kualitas hidup, Tinitus Handicap Inventory

CORRELATION BETWEEN FREQUENCY, INTENSITY, AND ONSET OF SUBJECTIVE TINITUS AND QUALITY OF LIFE IN PATIENTS WITH DIABETES MELLITUS

ABSTRACT

Background: Subjective tinnitus is a sound perception experienced by 30% of the adult population in the world. Quality of life in patients with tinnitus is related to the intensity, frequency, and onset of tinnitus. Several questionnaires have been developed to determine the severity of tinnitus and the patient's quality of life. One of the comorbidities that is significantly correlated with tinnitus incidence is diabetes mellitus.

Objectives: To assess the correlation between frequency, intensity, and onset of tinnitus and quality of life in patients with diabetes mellitus and subjective tinnitus.

Methods: This research is an analytic observational study with a cross-sectional design conducted on patients with diabetes mellitus and subjective tinnitus who were treated at polyclinic of RSUP Dr. Sardjito from February to September 2021. The frequency, intensity, and onset of tinnitus were assessed by pure tone audiometry and history taking. The Indonesian version of Tinnitus Handicap Inventory (THI) questionnaire was used to assess quality of life. Mann Whitney test was performed for bivariate analysis and linear regression test for multivariate analysis. Statistical analysis used a significance value of $p < 0.05$ and a 95% confidence interval.

Results: A total of 37 subjects were enrolled in this study. Most of the subjects were male (67.6%) with median age of 54 years. As many as 40.5% subjects were categorized as moderate handicap (40.5%) with a median THI score of 39. Characteristics of tinnitus severity experienced by majority of subjects were frequency of $\geq 2,000$ Hz (83.8%), intensity of ≥ 30 dB (86.5%), and onset of < 5 years (86.5%). There was a significant correlation between frequency ($p = 0.003$) and intensity ($p = 0.001$) of tinnitus with the patient's quality of life. Meanwhile, the onset of tinnitus was not statistically associated with quality of life ($p = 0.190$). The frequency and intensity of tinnitus may increase the THI score by 17.44 (95% CI=6.54–28.35) and 21.88 (95% CI=10.38–33.38), respectively.

Conclusion: Significant factors related to the quality of life of patients with diabetes mellitus and subjective tinnitus include the frequency and intensity of tinnitus.

Keywords: subjective tinnitus, diabetes mellitus, quality of life, Tinnitus Handicap Inventory