ABSTRAK

Judul	: HUBUNGAN DIABETES MELITUS TIPE 2 DENGAN TERJADINYA GANGGUAN PENDENGARAN
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Diabetes melitus tipe 2 dapat menimbulkan komplikasi mikrovaskular dan neuropatik, termasuk gangguan pendengaran. Penelitian ini bertujuan menganalisis hubungan kadar HbA1c dan durasi diabetes melitus tipe 2 dengan derajat gangguan pendengaran pada pasien dewasa. Data yang dianalisis merupakan data simulasi 40 pasien berusia 30–60 tahun di Rumah Sakit Royal Prima Medan. Derajat gangguan pendengaran dinilai dengan pure tone audiometry (PTA), sedangkan hubungan antarvariabel dianalisis menggunakan uji Spearman dan Chi-Square. Rerata HbA1c sebesar 8,72% dan rerata durasi diabetes 12,00 tahun. Gangguan pendengaran terbanyak berderajat sedang (52,5%). HbA1c berhubungan positif sangat kuat dengan derajat gangguan pendengaran (rho = 0,881; $p < 0,001$), sedangkan durasi diabetes menunjukkan hubungan positif kuat (rho = 0,707; $p < 0,001$). Kadar gula darah dan paparan bising juga berhubungan bermakna. Disimpulkan bahwa kontrol glikemik yang buruk dan durasi diabetes yang lebih lama berkaitan dengan gangguan pendengaran yang lebih berat. Skrining pendengaran berkala perlu dipertimbangkan, terutama pada pasien berisiko tinggi.

Kata Kunci: diabetes melitus tipe 2, HbA1c, gangguan pendengaran, pure tone audiometry

ABSTRACT

Title	*: THE RELATIONSHIP BETWEEN TYPE 2 DIABETES MELLITUS AND HEARING LOSS*
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Type 2 diabetes mellitus may cause microvascular and neuropathic complications, including hearing impairment. This study aimed to analyze the relationship of HbA1c level and duration of type 2 diabetes mellitus with the severity of hearing loss in adults. The analysis used simulated data from 40 patients aged 30–60 years at Royal Prima Hospital Medan. Hearing-loss severity was assessed using pure tone audiometry (PTA), while relationships between variables were tested with Spearman correlation and Chi-Square analysis. The mean HbA1c was 8.72% and the mean diabetes duration was 12.00 years. Moderate hearing loss was the most common degree (52.5%). HbA1c had a very strong positive correlation with hearing-loss severity (rho = 0.881; $p < 0.001$), while diabetes duration showed a strong positive correlation (rho = 0.707; $p < 0.001$). Blood glucose level and noise exposure were also significantly associated. Poorer glycemic control and longer diabetes duration were therefore associated with more severe hearing loss. Periodic hearing screening should be considered, especially for high-risk patients.

Keywords: *type 2 diabetes mellitus, HbA1c, hearing loss, pure tone audiometry*