

Association of Erectile Dysfunction with a Newly Diagnosed Tinnitus: A Nationwide Population-based Study

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Abstract

Objectives: Given some of the shared organic and psychogenic pathophysiologic mechanisms in tinnitus and erectile dysfunction (ED), we hypothesized that newly-onset tinnitus may be associated with ED. This study aims to explore the relationship between these two medical conditions using a nationwide population-based database. **Design:** A case-control study **Setting:** Taiwan **Participants:** We retrieved data from Taiwan's National Health Insurance Dataset, 19,329 patients with ED and 19,329 propensity score-matched patients without ED (controls). **Main outcome measures:** The diagnosis date was the date of the first ED claim for ED, which was the index date for cases. We defined the date of the control patient's first utilization of ambulatory care during the index year of their matched case as their index date. Tinnitus during a one-year period before the index date was the exposure of interest. **Results:** Of the 38,658 sampled patients, 1247 (3.23%) had been diagnosed with tinnitus within the year prior to the index date, 792 (4.10%) among cases and 455 (2.35%) among controls. Multiple logistic regression analysis showed that cases were more likely to have had a prior tinnitus diagnosis compared to controls (OR=1.772; 95% CI=1.577-1.992; $p<0.001$). After adjusting for co-morbid medical disorders and social economic factors, cases were more likely than controls to have a prior diagnosis of tinnitus (OR=1.779, 95% CI=1.582-2.001, $p<0.001$). **Conclusions:** This investigation detected a novel association between ED and newly-onset tinnitus. Physicians should be alert to the possibility of developing ED in patients treated for tinnitus.

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