

# Ten-year Trends in the Incidence of Microtia: A Nationwide Population-based Study from Taiwan

Yen-Fu Cheng<sup>1</sup>, Sudha Xirasagar<sup>2</sup>, Tsai-Ching Liu<sup>3</sup>, Nai-Wen Kuo<sup>3</sup>, and Heng-Ching Lin<sup>3</sup>

<sup>1</sup>Taipei Veterans General Hospital

<sup>2</sup>University of South Carolina

<sup>3</sup>Taipei Medical University

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## Abstract

**Objective:** The aim of this study was to analyze the 10-year secular trends in the incidence of microtia and/or anotia from 2008 to 2017 using nationwide population-based data. **Study design:** A cross-sectional study **Setting:** Taiwan **Participants:** Patient data were retrieved from Taiwan's National Health Insurance Dataset, after identifying 1,152 children aged [?]1 year with a first-time diagnosis of microtia or anotia between January 2008 and December 2017. The annual microtia-anotia incidence rate was the sum of new microtia-anotia cases in a year divided by total infant population in the year. **Method:** We used the annual percent change (APC) to study the secular trend in microtia-anotia incidence rate. **Results:** The annual incidence rate of microtia-anotia averaged across the 10-year period was 57.7 per 100,000 infants (standard deviation=8.6). The annual incidence rates of microtia and anotia were 53.3 and 4.4 per 100,000 infants, respectively, during this period. Furthermore, female infants had a higher incidence than males (63.3 vs. 52.4 per 100,000). The incidence of microtia-anotia gradually decreased between 2008 and 2017 with an APC of -5.64% (95% CI= -9.31%~-1.18%, p=0.004). Since 2011, females had a significantly higher annual incidence rate of microtia-anotia than males. **Conclusions:** The incidence of microtia-anotia was 57.7 per 100,000 infants in Taiwan, which declined during the study period 2008-2017. The female-to-male incidence ratio was 1.21:1.

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