

中文題目：睡眠呼吸中止症與女性不孕相關研究：一個 13 年全國性追蹤研究

英文題目：Association of obstructive sleep apnea with female infertility - A 13-year nationwide population-based retrospective study

作者：王一多<sup>1</sup>；簡戊鑑<sup>2</sup>；鍾其祥<sup>3</sup>；簡志峰<sup>1</sup>；張山岳<sup>1</sup>；彭忠衍<sup>1</sup>

服務單位：<sup>1</sup> 三軍總醫院胸腔內科；<sup>2</sup> 國防醫學院公衛系；<sup>3</sup> 三軍總醫院醫學研究室

**Study Objectives:** Obstructive sleep apnea (OSA) increases the risk of hypertension, type 2 diabetes mellitus (DM), cardiovascular diseases and stroke. In the previous study, we have shown that non apnea sleep disorder associates with increased risk of female infertility. However, the risk of OSA to female infertility has not been thoroughly understood. Our study aimed to determine whether OSA increases subsequent risk of female infertility.

**Methods:** Our study utilized the outpatient and inpatient data from Taiwan's National Health Insurance Research Database between 2000 and 2013. We enrolled 4,078 females aged 20 to 45 years old and diagnosed with female infertility in the end. 1,946 of them who matched our criteria were assigned to the study group. We retrospectively investigated those who had previous exposure to OSA. We used multivariable logistic regression analysis to estimate the effects of OSA on female infertility.

**Results:** The OSA cohort had an adjusted hazard ratio (HR) of female infertility 2.154-fold higher than that of the cohort without sleep disorders. In the stratified age group, the OSA group had the highest impact on 31- to 35-year-olds, with an adjusted HR of 2.690 (p=0.049).

**Conclusions:** Our study provides a nationwide, population based, 13-year retrospective data demonstrating that OSA patients are at a higher risk of female infertility.

**Key words:** Obstructive sleep apnea; Female infertility; Taiwan National Health Insurance Research Database; Longitudinal Health Insurance Database