## Incidence and Prevalence of Post-surgical Hypoparathyroidism in Korea

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Free Paper 9, November 11, 2017, 2:15 PM - 3:15 PM

Objective The epidemiology of post-surgical hypoparathyroidism(hypoPT) in Korea is not known well. This study aimed to investigate the prevalence and incidence of post-surgical hypoPT in Korea.

Methods Health insurance claims data for patients with a diagnosis of post-surgical hypoPT were extracted from the database of the National Health Insurance Sharing Service (NHISS) provided by National Health Insurance Corperation (NHIC) in Korea which covers almost all Korean residents approximately 50 million in total including detailed files of the outpatient, emergency, inpatient and pharmacy treatment records from January 1, 2003 to December 31, 2015. Post-surgical hypoPT was identified using ICD-10-CM diagnostic codes as well as following neck surgery that necessitated treatment with calcium and/or vitamin D analog supplementation for more than 2 times a year.

Results During the study years, prevalence of post-surgical hypoPT increased from 0.0016% to 0.013%. The incidence (per 100,000) increased throughout the years from 3.02 (2.87-3.18) in 2008 to 6.07 (5.86-6.28) in 2014. However, the incidence dropped abruptly in the year 2015 to 3.24 (3.25-3.57). The incidence was generally low compared to the previous study performed in other countries potentially thanks to advances in surgical skills to localize and preserved the unaffected parathyroid gland(s).

Conclusions This study demonstrated a substantial increasing trend in post-surgical hypoPT prevalence during 2003-2014 in Korea but relatively lesser than other countries. The reason why the incidence was suddenly decreased in 2015 might be the recognition of thyroid cancer over-diagnosis issue leading inevitably to more surgical complications such as hypoPT.