

# Risk of coronary heart disease in the elderly associated with medication of depression: a retrospective cohort study in Taiwan

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## Background

Depression is a major public health problem, the incidence of which is increasing and can lead to various physical and emotional problems, as well as impacting cardiovascular health. Therefore, this study evaluated whether patients with depressive symptoms are at an increased risk of developing coronary heart disease and whether antidepressants increase the risk of this disease.



## Methods

This retrospective study collected data from the Taiwan National Health Insurance Research Database 2000–2018 of patients aged 50 years and above who were clinically diagnosed with depression regarding their first coronary heart disease events and prescribed antidepressants. The data were analyzed to determine associations between coronary heart disease, depression, and the prescribed antidepressants.

## Results

The cumulative incidence of CHD (coronary heart disease) was 8.5% higher in the depression cohort than in the comparison cohort. The incidence of CHD in the depression cohort was 1.55-fold higher than in the comparison cohort, with a higher incidence of CHD in men than in women. Also, SNRI (Serotonin-norepinephrine Reuptake Inhibitors) and SGA (Second-generation antipsychotics) administered to manage depression were associated with a reduced risk of CHD.

## Conclusion

The shared etiology and genetic, biological, psychological, and behavioral mechanisms of cardiovascular events and depression are associated with an increased risk of cardiovascular diseases in depressed patients in a Taiwanese cohort.

