

Effect of early hysterectomy on a risk of incident cardiovascular disease in women

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Background/Aims: Women who inevitably underwent surgical hysterectomy before natural menopause may have an earlier increase in hematocrit and storage iron than women who continue menstruation, thereby increasing the risk of cardiovascular disease (CVD) early. We aimed to evaluate the association of women with hysterectomy vs. without hysterectomy before their 50s with the risk of incident CVD.

Methods: This was a retrospective-cohort study, 135,575 women aged 40 to 50 years in 2011-2014 were extracted from the Korean Health Insurance Review and Assessment Service data and after propensity score matching, 55,539 pairs were included in hysterectomy and non-hysterectomy group respectively. The primary endpoint was major adverse cardiac and cerebrovascular events (MACCE), a composite of cardiovascular death, myocardial infarction (MI), stroke, and coronary artery revascularization.

Results: After adjustment for confounding factors, hysterectomy group had an increased risk of MACCE compared with non-hysterectomy group (hazard ratio [HR], 1.25; 95% confidence interval [CI], 1.09-1.44). Regarding individual outcomes, cardiovascular death, MI, and coronary revascularization were comparable between the groups, whereas, the risk of stroke was significantly higher in hysterectomy group than non-hysterectomy group (HR, 1.31; 95% CI, 1.12-1.53). Even after excluding women who underwent oophorectomy, hysterectomy group had a higher risk of MACCE than non-hysterectomy group (HR, 1.24; 95% CI 1.06-1.44).

Conclusions: Early surgical menopause due to hysterectomy, not hormonal menopause, was associated with an increased risk for a composite of CVD, especially stroke. This suggest that the role of ‘uterus’ as well as sex hormones may be important for the sharp increase in the risk of CVD in women after menopause.

The risk of CVD in women with hysterectomy

