

Risk of cardiovascular diseases among women with endometriosis: a meta-analysis



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<u>Background:</u> Endometriosis is a chronic and estrogen-dependent benign disorder that affects about 10% to 15% of women in reproductive age in France. Endometriosis has been associated with chronic inflammation and atherogenic lipid profile, two conditions increasing relative risk of atherothrombotic cardiovascular diseases (CVD).

<u>Materials and Methods</u>: A systematic search of the Medline database was performed to find all relevant articles which included women who had endometriosis. Eligible articles published in English and reporting risk of arterial events (CVD, coronary heart disease (CHD), myocardial infarction and stroke) among women suffering from endometriosis were reviewed. We screened all articles identified through Medline (n=553). Five studies were eligible for inclusion in this meta-analysis from Taiwan*, UK and US).

Results: CHD **MAJOR CVD** STROKE Risk (CI 95%) Study (n/PY) (n/PY) (n/PY) Risk (CI 95%) Mu 2016 69/154 696 429/1 822 783 1.52 (1.17-1.98) Chiang 2021 315/17 543 996/70 172 1.16 (1.02-1.32) Chiang 2021 1 17 (1 05-1 29) 485/161 689 1.52 (1.23-1.87) Wei 2021 199/108 346 159/122 678 204/55 030 881/223 050 1.19 (1.04-1.36) Okoth 2021 Okoth 2021 1676/1 233 555 1.24 (1.13-1.37) Okoth 2021 279/360 271 753/1 241 282 1 40 (1 22-1 61) 1.17 (1.07-1.29) 1.21 (1.13-1.29) 1.45 (1.30-1.61)

<u>Discussion:</u> Although their results were homogeneous, the confounding factors taken into account were not the same, the UK study being the more detailed one. Moreover, endometriosis was laparoscopically confirmed only in the Nurse's Health Study. Thus, these results must be interpreted with caution.

<u>Conclusion</u>: Endometriosis seems to be associated with an increased risk of CVD, either CHD or stroke. More studies are needed to confirm these results.



^{* 3} retrospective nation-wide population-based cohort studies from Taiwan, It was also considered that the three Taiwan studies provided risks estimated with the same database but for different endpoints, except for CHD.