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Medroxyprogesterone interferes with ovarian steroid protection against coronary vasospasm.

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Abstract

Cardiovascular disease, the major cause of death in post-menopausal women, can be reduced by replacement of ovarian steroid hormones. To compare medroxyprogesterone with progesterone as the progestin in hormone replacement therapy from the standpoint of coronary artery vasospasm, we treated ovariectomized rhesus monkeys with physiological levels of estradiol-17 beta in combination with medroxyprogesterone or progesterone for four weeks. Coronary vasospasm in response to pathophysiological stimulation without injury showed that progesterone plus estradiol protected but medroxyprogesterone plus estradiol failed to protect, allowing vasospasm. We conclude that medroxyprogesterone in contrast to progesterone increases the risk of coronary vasospasm.