Obesity is risk factor for rare type of stroke in women using oral contraceptives

14 March 2016

Obese women who used oral contraceptives appeared to have increased risk for a rare type of stroke known as cerebral venous thrombosis (CVT) compared with women of normal weight who did not use oral contraceptives, according to an article published online by *JAMA Neurology*.

CVT is a rare condition that mainly affects young adults and children. Risk factors for CVT overlap some with those for venous thromboembolism (VTE) and include cancer and oral contraceptives but there also are risk factors specific to CVT including local infections and head trauma. Whether obesity was associated with CVT had not been assessed.

Jonathan M. Coutinho, M.D., Ph.D., of the Academic Medical Centre, Amsterdam, the Netherlands, and coauthors studied patients with CVT from two hospitals. The small study of men and women included 186 case patients with CVT and 6,134 healthy controls for comparison. Patients with CVT were more often younger (40 vs. 48 years old), female, more often used oral contraceptives and more frequently had a history of cancer compared with control participants.

The authors report obesity (a body mass index 30 or more) was associated with increased risk of CVT and that the association appeared due to the increased risk among women taking oral contraceptives. There was a nearly 30-fold increased risk of CVT among obese women taking oral contraceptives compared with women of normal weight not taking oral contraceptives. There also was an increased risk of CVT in overweight women who used oral contraceptives. However, there was no association between obesity and CVT among men or women who did not use oral contraceptives.

Limitations of the study include that only a small number of patients with CVT were included.

"The increased risk of VTE and CVT associated with oral contraceptives in the presence of obesity might make physicians reluctant to prescribe oral contraceptives to obese women. However, although the relative risks are increased substantially, the absolute risks of CVT are small. Moreover, withholding oral contraceptives may lead to an increase in unintended pregnancies and thus the number of pregnancy-related thrombosis cases. Nevertheless, obese women should be informed about the increased risk of thrombosis if they use oral contraceptives, especially if other risk factors are present. Alternative methods of contraception that are not associated with thrombosis, such as intrauterine device, might be offered to these women," the authors conclude.

"The authors correctly point out that despite the manifold increased relative risk, the absolute risk of CVT in obese women taking OCs [oral contraceptives] still remains low and should not preclude OC use among them. Use of OCs has also been associated with increased risk of arterial
ischemic stroke in obese women. Better counseling and education of obese women informing them of the increased risk would be prudent, as would be consideration of alternate nonhormonal OC options," writes Chirantan Banerjee, M.D., M.P.H., of the Medical University of South Carolina, Charleston, in a related editorial.

More information: JAMA Neurol. Published online March 14, 2016. DOI: 10.1001/jamaneurol.2016.0001

JAMA Neurol. Published online March 14, 2016. DOI: 10.1001/jamaneurol.2015.5107

Provided by The JAMA Network Journals

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.