The use of drospirenone-containing oral birth control pills is linked to a significantly higher risk of blood clots, both deep vein thrombosis and pulmonary embolism, according to an article in the Canadian Medical Association Journal.

All oral contraceptives are associated with a higher risk of blood clots, but there is conflicting information about the risk of adverse events with drospirenone. Many previous studies have evaluated risks of second- and third-generation contraceptives, which both contain derivatives of testosterone. Israeli researchers undertook a study to determine the risk of venous and arterial blood clots in various oral contraceptive users. They looked at data on 329 995 women in Israel aged 12 to 50 years who received oral contraceptives between January 2002 and December 2008 and followed them until 2009. There were 431 223 total use episodes.

The researchers found an elevated risk of venous thrombotic events for drospirenone users compared with second- and third-generation contraceptives. Risk was highest in the early months of use. A noticeable trend was a major increase in prescribing drospirenone-combined contraceptives over the years and a decline in use of second-generation contraceptives. Drospirenone has been marketed as causing less weight gain and edema than other birth control pills.

"Use of drospirenone-containing combined oral contraceptives was associated with a significantly increased risk of venous thrombotic events (deep vein thrombosis and pulmonary embolism) but not arterial thrombotic events (transient ischemic attack and cerebrovascular accident), relative to use of second- or third-generation combined oral contraceptives," states Dr. Naomi Gronich, Pharmacoepidemiology and Pharmacogenetics Unit, Department of Community Medicine and Epidemiology, Office of Chief Physician, Clalit Health Services Headquarters, Tel Aviv, Israel, with coauthors.

Older age, high blood pressure, high cholesterol, cancer and obesity were also risk factors for blood clots.

A US Federal Drug Agency (FDA) study released Oct. 27 warns of the increased risk of blood clots linked to drospirenone-containing oral contraceptives. The FDA will discuss the risks and benefits of these contraceptives at a meeting of the Reproductive Health Drugs Advisory Committee and the Drug Safety and Risk Management Advisory Committee on Dec. 8, 2011.

"With the increasing use of drospirenone-containing contraceptives, it is important to raise awareness of the increased, albeit small, risk of venous thromboembolism relative to third-generation pills, especially among those who are older or obese," the authors conclude.

In a related commentary, Dr. Susan Solymoss, McGill University, states "the study by Gronich and colleagues adds further evidence of a higher relative risk of venous thromboembolism among women taking this type of oral contraceptive, relative to the alternatives of either third- or second-generation oral contraceptives."

She notes that recent well-designed studies of drospirenone have shown a higher risk of blood clots compared with earlier articles that did not identify an elevated risk.

Provided by Canadian Medical Association Journal