Aspirin may decrease risk of aggressive form of ovarian cancer

October 9 2012

New research shows that women who regularly use pain relief medications, particularly aspirin, have a decreased risk of serous ovarian cancer—an aggressive carcinoma affecting the surface of the ovary. The study published in *Acta Obstetricia et Gynecologica Scandinavica*, a journal of the Nordic Federation of Societies of Obstetrics and Gynecology, reports that non-aspirin non-steroidal anti-inflammatory drugs (NSAIDs), paracetamol (acetaminophen), or other analgesics did not decrease ovarian cancer risk.

Ovarian cancer is the deadliest gynecological malignancy and the fifth-leading cause of death by cancer for women in developed countries. Previous studies report that Denmark has one of the highest incidence and mortality rates at 11 and 7 per 100,000 women, respectively. According to the Centers for Disease Control and Prevention (CDC), each year 20,000 women in the U.S. are diagnosed with ovarian cancer, with 90% of cases occurring in women older than 40 years of age and the greatest number in those 60 years or older.

"Ovarian cancer has a high mortality. Understanding what factors are involved in the development of this disease and investigating preventative interventions for women are vitally important," said lead author Dr. Susanne Kjær with the Danish Cancer Society Research Center. "Our study examined the role of analgesics in development of ovarian cancer."

For the present study, researchers used data from the malignant ovarian

cancer (MALOVA) study, a population-based, case-control study investigating this cancer in Danish women between 1995 and 1999. The team analyzed data from 756 women with epithelial ovarian cancer, classified by type of glandular tumors (adenocarcinomas); 447 were serous, 138 were mucinous, and 171 were other types. A random sample of 1564 women between the ages of 35 and 79 were drawn from the general population as controls. Personal interviews were conducted to determine analgesic drug use.

Findings indicate that women taking aspirin on a regular basis decreased their risk of serous ovarian cancer (odds ratio, OR=.60). Researchers did not find a decrease in ovarian cancer risk in women who regularly used non-aspirin NSAIDs, acetaminophen, or other types of pain relievers.

Dr. Kjær concludes, "Our findings suggest a potential protective effect of analgesic use on ovarian cancer risk, but that benefit should be balanced against adverse effects of pain medication use, such as risk of bleeding and peptic ulcers." The authors recommend that larger studies, which accurately assess dosage, frequency and duration of pain medications, are necessary to understand the impact of analgesic use on ovarian cancer.

In his editorial, also published in this month's issue, Dr. Magnus Westgren from Karolinska University Hospital in Stockholm, Sweden concurs with the study authors that strategies for preventing ovarian cancer are imperative. Dr. Westgren discusses preventive procedures such as bilateral salingectomy (BSE)—a removal of the fallopian tubes—in women at risk for ovarian cancer.

"If we informed women about the possibility of performing BSE at repeat cesarean section for ovarian cancer prevention, it is likely that many women would opt for this procedure," writes Dr. Westgren. He suggests that gynecology professionals discuss changing policies and

setting up randomized trials to further understand how BSE could reduce ovarian cancer risk.

More information: "Use of Analgesic Drugs and Risk Of Ovarian Cancer: Results from a Danish Case–Control Study." Henriette B. Ammundsen, Mette T. Faber, Allan Jensen, Estrid Høgdall, Jan Blaakær, Claus Høgdall and Susanne K. Kjær. Acta Obstetricia et Gynecologica Scandinavica; Published online: August 15, 2012 (DOI: 10.1111/j.1600-0412.2012.01472.x).

"Editorial: "Prevention of Ovarian cancer – Let's Do Something." Magnus Westgren. Acta Obstetricia et Gynecologica Scandinavica; Published online: August 15, 2012 (DOI:10.1111/j.1600-0412.2012.01484.x).

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