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The relationship Between Obesity and Ovarian Cancer

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Abstract:

The ovaries – as reproductive glands – are the sites of ovum production and they are also the main source of the sex hormones oestrogen and progesterone in premenopausal women. Ovarian cancer can originate from the three types of cells that make up the ovaries: epithelial cells, which cover the outer surface of the ovary; hormone producing stromal cells (structural tissue cells); and egg producing germ cells. Up to 95% of ovarian tumors are epithelial cell tumors. (1)

Introduction:

Five different tumor types account for 98% of ovarian cancers: high-grade serous carcinoma (70%), endometrioid carcinoma (10%), clear-cell carcinoma (19%), mucinous carcinoma (5%), and low-grade serous carcinoma (3%).

The findings means that risk of ovarian cancer is increased by carrying excess body fat.

That list includes post-menopausal breast cancer, colorectal cancer, endometrial cancer, esophageal cancer, kidney cancer, gallbladder cancer and pancreatic cancer. And being at a healthy weight could prevent 1 in 5 of these cases – or approximately 120, 900 cancer cases every year.(2)

Discussion:

Ovarian cancer is the eighth most common cause of death from cancer in women.

The estimated number of 152,000 deaths worldwide in 2012 (4.3% of deaths from cancer in women) .in 2012, approximately 239,000 cases of ovarian cancer were recorded, The findings means that risk of ovarian cancer is increased by carrying excess body fat Obesity is already linked to a variety of tumors, including those of the colon, uterus, esophagus, kidney, gallbladder, thyroid and pancreas, as well as postmenopausal breast cancer, according to the National Cancer Institute.

Maintaining a healthy weight could prevent of these cancers, Every year in the U.S., approximately 14,000 women die from ovarian cancer. It is the fifth leading cause of cancer death, mainly because difficulty in detection means many women are not diagnosed until the disease's later stages.

In the U.S., approximately two-thirds of women are overweight or obese, placing them at increased risk for developing cancers.

ovarian cancer is diagnosed in 22,400 American women every year and kills more than 14,000, according to the American Cancer Society.

Possible biological mechanisms linking obesity with ovarian cancer risk and progression include insulin resistance and hyperinsulinaemia, increased levels of circulating growth factors, chronic inflammation, and altered levels of sex hormones.(3)

Conclusions:

Ovarian cancer is the eighth most common cause of death from cancer in women, with an estimated number of 152,000 deaths worldwide in 2012 (4.3% of deaths from cancer in women), Maintaining a healthy weight could prevent of these cancers In the U.S., approximately two-thirds of women are overweight or obese, placing them at increased risk for developing cancers.

References:

- 1. Jochem, Carmen, Inga Schlecht, and Michael Leitzmann. "Epidemiologic Relationship Between Obesity and Ovarian Cancer." *Focus on Gynecologic Malignancies*. Springer, Cham, 2018. 21-30.
- 2. Pozza, Carlotta, and Andrea M. Isidori. "What's Behind the Obesity Epidemic." *Imaging in Bariatric Surgery*. Springer, Cham, 2018. 1-8.
- 3. Armbruster, Shannon, and Pamela T. Soliman. "Public Knowledge of Obesity and Gynecologic Cancer Risk." *Focus on Gynecologic Malignancies*. Springer, Cham, 2018. 31-40.