

An editorial on ovarian cyst in adults

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EDITORIAL

Ovarian cysts are a prevalent reason for surgery and hospitalization in women all over the world. According to reports, between 5% and 10% of women will have an adnexal lump surgically removed. More than 250,000 women are discharged from hospitals in the United States each year with an ovarian cyst diagnosis. Because ovarian cysts are so prevalent, pharmacists should be familiar with treatment options and the risk of cancer. Functional ovarian cysts and ovarian cystic neoplasms are two types of ovarian cysts. Follicular cysts and corpus luteum cysts, which form as a result of ovulation, are the most frequent functional ovarian cysts. Follicular cysts are thought to form when an ovarian follicle fails to burst and continues to develop. When the corpus luteum fails to retreat properly after ovulation, cysts can form. These cysts are called functional cysts because they form as a result of normal physiologic processes.

In premenopausal women, functional cysts are the most frequent form of ovarian cyst. Neoplastic development gives rise to ovarian cystic neoplasms. Surface epithelial cell tumors, germ cell tumors, and sex cord-stromal tumors are the three kinds that may be classified depending on their cells of origin. In women of reproductive age, most of these neoplasms are benign, but the risk of malignancy increases as women reach menopause.

The most frequent ovarian neoplasm is epithelial tumors, while the benign cystic teratoma (also known as dermoid cyst), which is a germ cell tumor, is the most common benign ovarian neoplasm. Dermoid cysts are mostly made up of ectodermal tissue, giving them the appearance of sebaceous glands, sweat glands, hair, and teeth.

Symptoms associated

Most ovarian cysts do not produce any symptoms and are discovered by chance during a physical checkup or ultrasound.

- (i) A dull feeling or weight in the pelvis is reported by some women with functioning ovarian cysts.
- (ii) Pain, peritoneal irritation, and delayed menses are more common in corpus luteum cysts than in follicular cysts.
- (iii) The patient may experience increasing abdominal girth or pressure as the ovarian cyst grows larger. Torsion or cyst rupture can cause acute, severe lower-abdominal discomfort.

Cyst diagnosis

Based on signs and symptoms alone, it's difficult to tell the difference between a functioning ovarian cyst and an ovarian tumor. Ultrasonography, both transvaginal and transabdominal, can be used to determine the cyst's

location, size, and physical characteristics, as well as any signs of malignancy. CA-125 levels can be used to differentiate between benign and malignant adnexal tumors, particularly in postmenopausal women. Despite the fact that ovarian cancer is less common in women of reproductive age, any suspicion based on the patient's history, signs and symptoms, imaging results, or serologic tests should be examined further. Without surgical ablation and histological examination, a clear diagnosis of the type of cyst and status as malignant or benign may not be reached in many situations.

Risk factors associated with the cyst

With age, the risk of ovarian cancer rises substantially. Premenopausal women's ovarian neoplasms are expected to be 13% malignant, while postmenopausal women's ovarian neoplasms are projected to be 45% malignant. Other risk factors for ovarian cancer, such as a family history of ovarian or breast cancer, other genetic cancer syndromes, infertility, and nulliparity, may be discovered by a thorough medical history. By the age of 60, carriers of the BRCA1 (breast cancer gene 1) mutation have a 60-fold increased risk of ovarian cancer, whereas carriers of the BRCA2 gene mutation have a 30-fold increased risk. Solid components, papillary projections, thick walls, thick septations, enhanced vascularity inside the cyst, bilaterality, and ascites are all ultrasonography findings that are suggestive for malignancy. The serum cancer antigen 125 (CA-125) has been explored as an ovarian cancer screening tool. Elevated amounts were discovered in around 90% of women with advanced-stage epithelial ovarian cancer, but only 50% of those with stage I ovarian cancer, which has the best chance of survival. CA-125 concentrations are commonly increased in various benign diseases such as liver disease, renal disease, uterine fibroids, pelvic inflammatory disease, endometriosis, and pregnancy; therefore, sensitivity and specificity are poor. CA-125 testing is more useful in the postmenopausal population since these diseases are more frequent in premenopausal women and ovarian cancer is more common in postmenopausal women.

Cysts in the ovaries are prevalent in women of all ages. Patients may inquire about their condition, particularly if they are on hormonal contraceptives or are undergoing ovulation induction. Ovarian cysts that are functional are physiologic and generally disappear on their own after a few menstrual cycles. Combined oral contraceptives can help prevent these cysts from forming, but they don't speed up the healing process. In women of reproductive age, ovarian tumors are often mild. With age, the likelihood of a cancerous ovarian tumor increases. CA-125 testing can assist differentiate between benign and malignant ovarian tumors, especially in postmenopausal women. While laparoscopy is routinely used to remove benign cysts, laparotomy is frequently utilized to remove potentially malignant tumors. When women with specific signs indicative of malignancy are referred to a gynecologic oncologist very early, their chances of survival.

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