Editorial

Ovarian cysts in post-menopausal women

Ovarian cysts in post-menopausal women are usually benign functional cysts and known to be very common and most are not cancerous[1]. In general, all post-menopausal women with ovarian cysts should be evaluated by pelvic sonography. However, because the greatest risk factor for ovarian cancer is age, any cysts in a postmenopausal woman should be taken seriously. Generally, cysts that do not demonstrate well-defined malignant characteristics and do not grow may simply be observed for changes through serial ultrasound for a period of time. The features of a benign or malignant ovarian cyst can often be seen with an ultrasound. A solid ovarian cyst with papillary projections and ascites has a higher probability of being malignant[2]. Ovarian cysts that do not have two of the three features of malignant cysts (solid, papillary projections, and ascites) have a probability of being benign. Benign cysts can also be determined by color Doppler measuring the resistive index. When the resistive index is normal in both ovaries there is a high probability that the cyst is benign[3].

It is estimated that the incidence of adnexal masses in asymptomatic postmenopausal women is between 3% and 18%[4]. The risk of malignancy is low if the cyst is unilocular and less than 10 cm in diameter[5]. Ovarian cancer is more likely in women who have: (a) genetic predisposition to ovarian cancer (e.g., family history of ovarian or related cancers) (b) a previous history of breast or gastrointestinal cancer.

Ovarian cysts may be either symptomatic or asymptomatic[6]. Women with symptoms from ovarian cysts typically experience pain or pressure in the lower abdomen on the side of the cyst. This pain may be dull or sharp; it may be constant or come and go.

Thorough medical history should be taken from the woman, with specific attention to risk factors and symptoms suggestive of ovarian malignancy, and a family history of ovarian, bowel or breast cancer. A full physical examination of the woman is essential and should include body mass index (BMI), abdominal examination to detect ascites and characterise any palpable mass, and vaginal examination.

Ovarian cysts can sometimes be detected during a pelvic examination, although an imaging test, usually a pelvic ultrasound i.e. transvaginal ultrasonography, the single most effective way of evaluating ovarian cysts in postmenopausal women along with Doppler flow ultrasonography to confirm the diagnosis[7]. Computed tomography (CT) scan or magnetic resonance imaging (MRI) are also sometimes used.

One or more blood tests may be recommended for diagnosis of ovarian cyst. The blood test(s) can help to determine the nature of the cyst. CA 125 is a blood test that is sometimes drawn in women with ovarian cysts[8]. However, ovarian cancer cannot be diagnosed based upon the results of a CA 125 test. Many women with early ovarian cancer have a normal CA 125 level. CA 125 is abnormally elevated in about 80 percent of women with advanced ovarian cancer. Also, non-cancerous conditions can cause CA 125 to be elevated, including endometriosis, uterine fibroids, pelvic infections, heart failure, and liver and kidney disease. As a result, measurement of the CA 125 is not recommended in every case

There is currently not enough evidence to support the routine clinical use of other tumor markers, such as human epididymis protein 4 (HE4), carcinoembryonic antigen (CEA), CDX2, cancer antigen 72-4(CA72-4), cancer antigen 19-9 (CA19-9), alphafetoprotein (αFP), lactate dehydrogenase (LDH) or beta-human chorionic gonadotrophin (^{2}-hCG), to assess the risk of malignancy in postmenopausal ovarian cysts.

It is recommended that a 'risk of malignancy index' RMI 1 that combines a product of the serum CA125 level (iu/ml); the menopausal status (M); and an ultrasound score (U) as follows: RMI = U × M × CA125. should be used to guide the management of postmenopausal women with ovarian cysts, as an effective way of triaging these women into those who are at low or high risk of malignancy[9].

In postmenopausal women, the decision to undergo watchful waiting depends upon the initial testing (ultrasound and CA 125). If the cyst does not appear to be cancerous, watchful waiting may be an option, and includes a pelvic ultrasound and measurement of CA 125 every three to six months for one year, or until the cyst resolves[10]. If the CA 125 levels increase or

the cyst grows significantly or changes in appearance, have potentially malignant characteristics, or associated with symptoms then surgery to remove the cyst may be recommended.

Removal of an ovarian cyst can many times be performed with laparoscopy. Occasionally an open procedure (referred to as a laparotomy) is required. It is important that the gynecologist, if not a gynecologic oncologist, have a gynecologic oncologist on standby if the cyst has potential malignant characteristics or if the CA125 is elevated. Surgery may be recommended in the following situations (a) if a cyst is causing persistent pain or pressure, or may rupture or twist (b) a cyst appears on ultrasound to be caused by endometriosis.(c) a large cysts (>5 to 10 cm) are more likely to require surgical removal compared to smaller cysts. However, a large size does not predict whether a cyst is cancerous.

Complex cysts (those which have potentially malignant characteristics) should thoroughly be evaluated by an expert sonographer in pelvic imaging, and careful consideration about their removal should be made.

Current models suggest that there is a potential 5-year pre-clinical phase (a time where a cancer is developing and is not detectable or associated with symptoms) to ovarian cancer. So no cyst or ovarian abnormality should be ignored and forgotten about. All need some form of follow-up[11]. It is reasonable to discharge from follow-up after 1 year if the cyst remains unchanged or reduces in size, with normal CA125.

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