

Ovarian Cyst as a Cause of Chronic Pelvic Pain - an Ultrasound Study

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ABSTRACT

30 patients with chronic pelvic pain coming to ZMH were selected. On ultrasound examination 2 had cystic mass in ovary. Women normally have two ovaries that store and release eggs. Each ovary is about the size of a walnut, and one ovary is located on each side of the uterus. One ovary produces one egg each month, and this process starts a woman's monthly menstrual cycle. The egg is enclosed in a sac called a follicle. An egg grows inside the ovary until estrogen, signals the uterus to prepare itself for the egg. In turn, the lining of the uterus begins to thicken and prepare for implantation of a fertilized egg resulting in pregnancy. This cycle occurs each month and usually ends when the egg is not fertilized. All contents of the uterus are then expelled if the egg is not fertilized. This is called a menstrual period.

Key words: ovary, chronic pelvic pain, ultrasound, ovarian cyst.

INTRODUCTION

Chronic pelvic pain is a common gynecologic complaint, affecting about 5% of American women^{1,4}. Chronic pelvic pain is defined as pain that occurs below the umbilicus (belly button) that lasts for at least six months. It may or may not be associated with menstrual periods. Chronic pelvic pain is not a disease; rather, it is a symptom that can be caused by several different conditions². The differential diagnoses is broad, including many medical diseases and surgical indications.

Chronic pelvic pain may be related to one or more of several etiologic factors, such as endometriosis, sequelae of PID, ovarian cysts, pelvic vascular congestion, myofascial pain syndrome, irritable bowel syndrome, interstitial cystitis, nephrolithiasis, primary dysmenorrhea, postural alterations³.

Medical sonography (ultrasonography) is an ultrasound-based diagnostic medical imaging technique used to visualize muscles, tendons, and many internal organs, to capture their size, structure and any pathological lesions with real time tomographic images. Ultrasound has been used by radiologists and sonographers to image the human body for at least 50 years and has become one of the most widely used diagnostic tools in modern medicine⁵.

Sonography is generally described as a "safe test" because it does not use mutagenic ionizing radiation, which can pose hazards such as chromosome breakage and cancer⁶.

Ovarian cyst: Ovarian cysts are small fluid-filled sacs that develop in a woman's ovaries⁷. Most cysts are harmless, but some may cause problems such as rupturing, bleeding, or pain; and surgery may be required to remove the cyst(s). It is important to understand the function of the ovaries and how these cysts may form.

The most common types of ovarian cysts are the following:

Follicular cyst: Different kinds of functional ovarian cysts can form during this cycle. In the follicular phase, follicular cysts may result from a lack of physiological release of the ovum due to excessive FSH stimulation or lack of the normal LH surge at mid cycle just before ovulation. Hormonal stimulation causes these cysts to continue to grow. Follicular cysts are typically larger than 2.5 cm in diameter and manifest as pelvic discomfort and heaviness⁸.

Corpus luteum cyst: In the absence of pregnancy, the lifespan of the corpus luteum is 14 days. If the ovum is fertilized, the corpus luteum continues to secrete progesterone for 5-9 weeks until its eventual dissolution in 14 weeks time, when the cyst undergoes central hemorrhage. Failure of dissolution to occur may result in a corpus luteal cyst, which is arbitrarily defined as a corpus luteum that grows to 3 cm in diameter. The cyst can cause dull, unilateral pelvic pain and may be complicated by rupture, which causes acute pain and possibly massive blood loss⁹.

Hemorrhagic cyst: This type of functional cyst occurs when bleeding occurs within a cyst. Symptoms such as abdominal pain on one side of the body may be present with this type of cyst.

Dermoid cyst: This is a type of benign tumor sometimes referred to as mature cystic teratoma. It is

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an abnormal cyst that usually affects younger women and may grow to 6 inches in diameter. A dermoid cyst can contain other types of growths of body tissues such as fat and occasionally bone, hair, and cartilage.

AIMS AND OBJECTIVES

To see the prevalence of ovarian cysts in patients of chronic pelvic pain.

SUBJECTS AND PROCEDURE

Thirty patients with complaints of chronic pelvic pain coming to Zainab Memorial Hospital were selected. The patients were instructed to come for sonogram after 8 hrs. Of fast and prohibition of fatty food 24 hrs before scan, they were also instructed to withhold urine at least 5 hrs before exam.

RESULTS

Out of 30 patients of chronic pelvic pain examined under real time ultrasound with complaints of chronic pelvic pain 6.7 % had ovarian cysts.

DISCUSSION

As most ovarian cysts cause no symptoms, many cysts are diagnosed by chance. For example, during a routine examination, or if we have an ultrasound scan for another reason¹⁰. Most ovarian cysts are small, benign (non-cancerous), and cause no symptoms. Some ovarian cysts cause problems which may include one or more of the following:

Pain or discomfort in the lower abdomen. The pain may be constant or intermittent. Pain may only occur when you have sex.

Periods sometimes become irregular, or may become heavier or lighter than usual. Sometimes a cyst may bleed into itself, or burst. This can cause a sudden severe pain in the lower abdomen.

Occasionally, a cyst which is growing on a stalk from an ovary may twist the stalk on itself (a 'torsion'). This stops the blood flowing through the stalk to the cyst and causes the cyst to lose its blood supply. This can cause sudden severe pain in the lower abdomen.

Large cysts can cause your abdomen to swell, or press on nearby structures. For example, they may press on the bladder or rectum which may cause urinary symptoms or constipation.

Although most cysts are benign, some types have a risk of becoming cancerous. (See separate leaflet called 'Ovarian Cancer' for more details.)

Rarely, some ovarian cysts make abnormal amounts of female (or male) hormones which can

cause unusual symptoms. Ovarian cysts do not always require treatment. In premenopausal women, ovarian cysts often resolve on their own, without treatment, within one to two months. In postmenopausal women, ovarian cysts may not resolve.

If a cyst is large, causing pain, or appears suspicious for cancer, treatment usually involves surgery to remove the cyst or the entire ovary.

In premenopausal women, watchful waiting usually involves monitoring for symptoms (pelvic pain or pressure) and repeating the pelvic ultrasound after six to eight weeks. If the ovarian cyst does not enlarge or if it resolves during the period of watchful waiting, it does not usually require surgical removal. Some premenopausal women will be advised to take a birth control pill during this time to help prevent new ovarian cysts from developing.

If a cyst decreases in size or does not change, the ultrasound is often repeated at regular intervals until your healthcare provider is certain that the cyst is not growing. If the cyst resolves, no further testing or follow up is required.

In postmenopausal women, the decision to undergo watchful waiting depends upon the initial testing (CA-125 and ultrasound). 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. However, ovarian cysts do not always resolve in postmenopausal women^{11, 12, 13, 14, 15}.

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