

Diagnosis And Treatment of Benign Ovarian Tumors

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ABSTRACT

The most common disorders of the ovaries are benign ovarian tumors which occur with an 80% incidence in women compared to malignancies. The incidence of benign ovarian tumors with cystic type in Indonesia in 2015 occurred as many as 23,400 people with a death rate of 13,800 people. In connection with this incident, there are several risk factors associated and the symptoms that occur are usually common such as gastrointestinal symptoms, urinary frequency, and constituent symptoms so that a proper diagnosis is needed by doing anamnesis, physical examination and supporting examinations. Supporting examinations can be done by ultrasound, MRI, X-rays and blood tests with tumor markers CA-125 where in malignant ovarian tumors, the tumor marker CA-125 increases, which is >35 IU/ml. Management of benign ovarian tumors is generally done through observation and also surgery depending on the degree of severity. The surgery that is usually performed is either partial surgery or radical surgery. Surgery is indicated if there are several indications such as cystic ovarian structures measuring more than 5 cm that have been observed for 6 - 8 weeks without regression, solid ovarian lesions, ovarian lesions with papillary vegetation on the cyst wall, and other indications as well.

Keywords: Benign ovarian tumor, diagnosis, treatment.

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I. INTRODUCTION

The ovaries have an important function in reproduction and menstruation. Disorders of the ovaries can cause inhibition of growth, development and maturation of the egg. One of the disorders found in the ovaries is an ovarian tumor [1]. Tumor (in Latin language meaning "swelling") is a group of abnormal cells and is formed as a result of excessive and uncoordinated cell division. Tumors are divided into two major groups, namely benign tumors and malignant tumors or cancer [2]. Ovarian tumors are new masses or abnormal tissue that forms in the ovaries and have different shapes and characteristics from the original tissue cells. This is due to the abnormal proliferation and differentiation of cells in the ovaries due to mutations in genes that regulate the proliferation of these cells [1].

The most common ovarian tumors in women are benign ovarian tumors with an incidence of 80% with the majority being cystic lesions and the remainder being malignant ovarian tumors [3]. The incidence of benign ovarian tumors in the form of cysts in Indonesia in 2015 was 23,400 people and 13,900 people died. This high mortality rate is caused because the disease is initially asymptomatic and only causes complaints when metastases have occurred so that 60-70% of patients come at an advanced stage [4]. Indonesian Health Demography Survey shows the incidence of ovarian cysts in Indonesia reaches 37.2%, and most often

occurs in women aged between 20-40 years and rarely occurs at puberty or less than twenty years [5]. However, it is possible that women in their teens may not develop benign ovarian tumors.

There are a number of risk factors associated with its origin. The relative risk for ovarian malignancy increases significantly after the age of 40 years. Early menarche and late menopause are associated with an increased risk. The use of oral contraceptives has also been found to be associated with a reduced risk of benign ovarian tumors. Common symptoms include flatulence, abdominal and pelvic pain, and dyspepsia as well as an increased urinary frequency. Family history of ovarian tumors and breast cancer has a strong association and is considered a major risk factor for malignancy [6].

Benign ovarian tumors usually does not have typical symptoms, the symptoms that usually appear are unusual bleeding from the vagina or pain in the abdomen with increasing size of the tumor or cyst. Based on the classification, benign ovarian tumors are divided into several types including ovarian epithelial tumors which are the most common type, where in this type of tumor, the cells manifest from the outer surface surrounding the ovary. The form can be cystic (cystadenoma), solid (adenofibroma) or mixed (cystadenofibroma), and Brenner's tumor [7].

II. DIAGNOSIS

A. History

Patients with benign ovarian tumors generally seek treatment more often after feeling a disturbance. And when symptoms arise or are felt, they are often vague or non-specific. Therefore, it is necessary to take a history of the patient based on the fundamental 4 and sacred 7 principles. related to the symptoms felt such as abdominal pain, abdominal mass and enlarged abdomen. Gastrointestinal symptoms such as nausea, vomiting and urinary symptoms such as increased urinary frequency and constitutional symptoms including weight loss may be asked [8].

B. Physical Examination

Directing the diagnosis of benign tumors can be done by abdominal palpation. Gynecological examination can direct the diagnosis of benign ovarian tumors. Abdominal palpation and gynecological examination will reveal a cystic consistency, limited movement, smooth surface, flat type, not found/little ascites, and unilateral. If it is suspected that a benign ovarian tumor is carried out by the results from the physical examination, an additional examination is carried out to establish the diagnosis [9].

C. Supporting Examination

Supporting examinations can be done by ultrasonography (USG), Magnetic Resonance Imaging (MRI), X-rays and blood tests. Ultrasonography (USG) serves to determine the location, border, and surface of the tumor through the abdomen or vagina, whether the tumor originates from the ovary, uterus, or bladder, and whether the tumor is cystic or solid. Magnetic Resonance Imaging (MRI) is performed to determine the location in more detail and see if there is a spread (metastasis). X-ray examination serves to determine the presence of hydrothorax, whether there is abnormal fluid or not in the chest like a tooth in a tumor. The blood test performed was the CA-125 tumor marker test. CA-125 is an antigen with a molecular weight of 200-1000 kDa and is a mucin-like glycoprotein expressed by epithelial ovarian tumors. with a normal value of less than 35 IU/ml. In malignant ovarian tumors, the tumor marker CA-125 would increase, which is more than 35 IU/ml [9], [10].

III. TREATMENT

Treatment options for patients with benign ovarian tumors are considered based on the symptoms and severity of the patient. In general, the management of patients with benign ovarian tumors is observation and surgery. Indications for surgery on benign ovarian tumors include [11]:

1. Ovarian cystic structure measuring more than 5 cm which has been observed for 6 to 8 weeks without regression
2. Ovarian solid lesion
3. Ovarian lesion with papillary vegetation on the cyst wall
4. Adnexal mass with a diameter of more than 10 cm
5. Ascites
6. Adnexal mass in premenarchal and postmenopausal women

7. Suspected torsion and rupture

The type of surgery depends on the size and spread of the tumor and the woman's plans to have children. There are 2 main surgical procedures for benign ovarian tumors, namely [12]:

A. Partial Surgery

Partial surgery consists of laparoscopy and laparotomy. Laparoscopy is performed if the mass is less than 5 cm in size and there are no signs of malignancy on sonogram examination. Laparoscopy is performed by placing the patient in the lithotomy position, given general anesthesia with an endotracheal tube and inserting a laparoscope into the pelvic cavity by making a small incision in the abdominal wall with the incision in the direction of the pubic hairline [12], [13].

Laparotomy is performed if the mass is more than 5 cm. This procedure is essentially the same as a laparoscopic procedure except that it is performed under general anesthesia and an incision is made in the midline of the abdomen that allows the entire abdomen to be exposed. [12], [13].

B. Radical Surgery

Radical surgery is performed when the tumor develops into a malignancy and metastasizes. Radical surgery is performed in the form of hysterectomy in the form of removal of the uterus and cervix, salpingoophorectomy in the form of removal of the fallopian tubes and ovaries, ovariectomy in the form of removal of the ovaries and omentectomy in the form of removal of the omentum [14].

IV. CONCLUSION

Benign ovarian tumors which are the most common tumors in women, and most often occur at the age of 20-40 years, but does not close the possible risk in other age ranges. The risk factors also vary, ranging from age, history of menarche, family history and lifestyle, and history of using contraceptives.

Common symptoms that occur include flatulence, abdominal and pelvic pain, and dyspepsia as well as an increase in the frequency of urination. It is necessary to determine the correct diagnosis using anamnesis, physical examination and investigations on the patient. Through history taking, it can be explored more deeply about the main complaint and other complaints from the patient. After that, it is followed by a physical examination of the patient which can be done with a general examination, then directs the diagnosis to a benign ovarian tumor by performing an abdominal examination and gynecological examination. Then supporting examinations can be done using ultrasonography (USG), Magnetic Resonance Imaging (MRI), X-rays and blood tests.

After the diagnosis is established, the treatment is carried out by considering the severity of the disease. In general, treatment is done through observation and surgery, either partially or radically with several indications.

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