POSTMENOPAUSAL ADNEXAL MASSES

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SUMMARY

In the last three years 107 postmenopausal women were admitted to Obstetrics and Gynecology Department of the Marmara University Hospital with the diagnosis of "Adnexal mass". Sixty six (63.5%) of 104 adnexal masses were found to be benign tumors and 38 (36.5%) were malignant tumors. 3 tumors of non-gynecologic origin were detected in the same series.

The rate of malignancy increases when the adnexal mass is greater than 5 cm. In our series, histologically epithelial tumors constituted 62.1% of benign and 92% of malignant tumors. Postmenopausal women with palpable ovaries were accepted to be under high risk for malignancy and treated as required. Surgical treatment was unavoidable for these patients and always midline incision was performed.

Key Words: Postmenopause, adnexal mass.

INTRODUCTION

Adnexia contains the fallopian tubes, ovaries, and embryologic remnants in the round and broad ligament. Adnexal mass commonly expresses the pathologic finding relevant to the ovary because ovaries have endless potentialities for developing neoplasia. Nevertheless, this sentence reminds us the very well known truth; "Ovaries may be too old to function but not too old to develop tumors."

The peak incidence of ovarian tumors is between ages 45 to 50 so women at these ages eventually belong to high risk group. 1-4% of women develop ovarian cancer during their life time and women over 40 (2%) would die because of malignancy (1). It is not usually possible to diagnose an ovarian tumor in its early stages. There has been little progress in identifying those precursors and in-situ stages. There is not any effective screening test available for early diagnosis. Finally, in spite of the availability of surgery, a multitude of chemotherapeutic agents and improved radiotherapeutic techniques still provide a 5 (35%) year survival rate. There is not much difference between this finding and the findings achieved 35 years ago (2).

MATERIAL AND METHODS

Between January 1st 1989 and December 30th 1992, 107 patients with postmenopausal adnexal masses were admitted to the Gynecology service at the Marmara University Hospital. All patients underwent laparotomy supervised by an attending gynecologist. We reviewed the operative records of patients who underwent laparotomy with the preoperative diagnosis of adnexal mass. The charts of these 107 women were studied according to origin, size of the adnexal mass, preoperative findings and final surgical pathology results. The diagnosis was made by pelvic examination in most of the patients. For patients whose diagnosis was almost certain, other diagnostic modalities such as ultrasonography, MRI, laparoscopy or paracentesis were not ordered on routine basis considering the cost effectiveness.

RESULTS

The postmenopausal adnexal masses diagnosed and treated in the last three years, and the histologic classification of postmenopausal benign adnexal masses are given in table I and II respectively.

The histologic types of malignant postmenopausal adnexal masses are shown in table III.

DISCUSSION

At the time of diagnosis, ovarian tumors have already found to be metastased and existed in advanced stages by affecting patient's prognose seriously. Diagnostic tests are listed in table IV. Among those procedures obviously bimanual pelvic examination is the most easy, quick and safe one. If it is done with proper attention and completed with rectal examination, the most reliable findings about pelvic viscera and structures will be obtained.

It has been suggested that, pelvic examination must be done in every six months. Nevertheless the chance of detecting the neoplasm of anovary in an asymptomatic patient on routine pelvic examination is 1/10000 (3). After a normal pelvic examination, detecting an ovarian neoplasm before the end of a 6 month period is an unexpected event but may happen as reported in a study. In this retrospective

study 10% of the advanced staged ovarian tumors were presented as an initial sign in a group of patients who had negative pelvic findings before the end of 6 month period. However, a bimanual examination has some characteristic problems as obesity in the elderly women which is the most common problem. The problems which are encountered during pelvic examination are summarized in table V.

By pelvic examination 30% of ovarian tumors have been diagnosed incidentally. The patient with an abdominal mass, swelling and pain on diagnosis is usually found already metastasized. Physiologically enlarging of the postmenopausal ovary is not normal. Physiological cysts occur with the cystic degeneration of either corpus luteum or an unruptured graafian follicule. Neither follicle nor lutein cysts are seen in the postmenopausal women as they do not exist anymore (3).

A normal ovary is 3,5 x 2 x 1.5 cm. in the reproductive age group. However ovarian dimensions decrease and become atrophic at menopause. Dimensions decrease to 2 x 1.5 x 0.5 cm. and sometimes to 1.5 x 0.75 x 0.5 cm. They are not palpable by the bimanual pelvic examination at post-menopausal period.

A postmenopausal palpable ovary is not a physiologic condition at this decade of life, unless proven otherwise, it must be accepted as a pathologic ovary and surgical intervention is compulsory. The prognosis of an ovarian tumor is closely relevant to its early diagnosis. Application of the variable diagnostic procedures (USG, CT, etc) is completely time consuming processes that may delay early intervention in a postmenopausal woman who has a palpable adnexal mass. Similarly obtaining material either from ascites by parascentesis or from a cyst by laparoscopy for a cytological analysis may give 50% negative results (4).

Postmenopausal adnexal masses were classified according to their sizes as shown in table VI. In 40 % of cases masses have been found to be more than 10 cm. and 57.5 % of this group have had malignant diagnosis. In the group between 5-10 cm. malignancy rate was 28.5 %. The group less than 5 cm. had a 17.6 % malignancy rate. The incidence rate found in this study was high when compared with the literature. In our study malignancy rate increased with the patient's age and the size of the mass. Some gynecologists are reluctant for laparotomy in cases diagnosed as simple ovarian cyst less than 5 cm. at USG. Unfortunately even this kind of simple cysts have 3-10% malignancy rate. Luxman et al. reported that negative USG may skip 6% of ovarian malignancy whereas the cases which are classified as malignant by USG have 60-70% benign incidence (6). These findings point out that it is not wise to diagnose malignant and benign cysts by USG. Laboratory procedures as CT and MRI are known to be auxillary investigations in diagnosis. Laparoscopy is an important tool in gynecology for both diagnosis and treatment. However, it is not considered as a valid procedure in postmenopausal women with adnexal masses diagnosed by pelvic examination. Nevertheless, it can be applied to the woman, who has negative pelvic examination, but has a mass detected by USG. The place of routine laparoscopy in adnexal evaluation is limited as the accuracy of diagnosis is only 70% in detecting benign tumors. Therefore detecting the nature of tumor by laparoscopy is not safe enough to rule out malignancy.

A midline incision must be done on patients who have

Table I : Postmenopausal adnexal masses

	Number	%
Gynecologic Origin		
Benign	66	63,5
Malignant	38	36,5
Non-Gynecologic		
Benign	1	0,94
Malignant	2	1,87
SUM	107	

Table II : Postmenopausal benign adnexal lesions

Simple serous cyst	27
Cystic teratoma	21
Endometrioma	6
Serous cystadenoma	4
Musinous cystadenoma	4
Granulomatous salpengitis	2
Torsion of adnex	1
Diverticulitis	1
Normal genital finding	1
SUM	67

Table III : Postmenopausal malignant adnexal lesions

Serous papiller cystadeno ca.	25
Musinous cystadeno ca.	5
Clear cell ca.	3
Endometrioid ca.	2
Mixed mesothelioma	2
Krukenberg T.	2
Mesodermal Mixed T.	1
Colon ca.	2
SUM	40

Table IV : Diagnostic tests in the evaluation of adnexal masses

Pelvic examination
Ultrasonography
Computerized tomography (CT)
Magnetic resonance imaging (MRI)
Laparoscopy
Biochemical tests (hormones, tumor markers)

Table V : Problems encountered during pelvic examination

Obesity
Contracted vagina
Vaginal atrophy
Lack of cooperation

Table VI : Sizes of postmenopausal adnexal masses

Pathology	Size		
	5 cm	5-10 cm	10 cm
Benign			
Non neoplastic tumors	4	14	9
Epithelial tumors	2	6	6
Germ cell tumors	8	11	2
Malignant			
Epithelial tumors	3	10	22
Mesothelioma		2	
Mesodermal mixed tumors			1
SUM	17	43	40

adnexal masses and should be extended above umbilicus where malignancy is suspected. At the beginning of the operation, peritoneal washings has to be sent for frozen section. TAH + BSO should be done in cases even with simple cysts. Stage I and stage II cases do require TAH + BSO + omentectomy + pelvic and paraaortic lymph node dissections. Debulking procedure must be done in cases at stage III and IV by trying not to leave a residue tumor more than 1cm. Apendectomy should be done routinely for cytoreduction in malignant cases, as appendix is an important organ for the metastasis of malignant adnexal tumors with an incidence of 33% microscopic metastasis.

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