POSTMENOPAUSAL PALPABLE OVARY SYMDROME: A RETROSPECTIVE SURVEY

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ABSTRACT

Objective: A retrospective study of the postmenopausal palpable ovary (PMPO) on their incidence, characteristics of masses and treatment selected were carried out. Methods: 97 postmenopausal women over age 50 with ovarian masses diagnosed by the manual pelvic palpation were analyzed. The age, size and characteristics of tumor, symptoms, as well as pathological findings and treatment were discussed. Results: 86.6% of cases had tumor masses, and 13.4% were physiological in nature. 23.7% of the masses were malignant. 72 patients (74.2%) visited doctors because of existing symptoms. Among them 82.5% cases had the masses discovered by manual pelvic examination, and 91.3% found by abdominal ultrasound screening. Transvaginal sonography can diagnose all the palpable masses. Conclusion: All PMPO patients should be operated as soon as diagnosis is established.

Key words: Ovarian carcinoma, Postmenopause, Diagnosis, Surgery

Patients with postmenopausal palpable ovary (PMPO) were diagnosed more and more recently, which may due to improvement of the investigational modalities and approaches. How to treat these kind of patients? Operation vs conservative therapy is still remain in dispute, no uniform approach had been established. Barber[1] in 1971 suggested that for any woman with postmenopausal palpable ovary, laporatomy should be performed, and total hysterectomy and bilaterial adnexctomies should also be carried out. But different opinions had been raised by other.[2] This paper retropspectively analyses 97 patients of PMPO, from age, incidence, menopausal history, physical findings as well as pathological results.

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MATERIALS AND METHODS

Women after one year of menopause, their ovaries showed signs of degeneration, and cannot be palpated by manual pelvic examinations. Ninty seven hospitalized patients more than one year post-menopause with palpable ovaries were analysed. They all have no history of taking any hormone replacement therapy.

Ninety-seven female patients over 50 years old, among them 80 with palplabel ovaries by pelvic examination, and 17 with nonpalpable ovaries by pelvic examination first, and later masses were found by abdominal ultrasound, and further pelvic examinations revealed palpable ovaries. Their age ranged from 51—74, with mean age of 64.4. The shortest duration of menopausal peroid is 16 months, and longest is 35 years, average is 10 years and 4 months. Preoperative examinations revealed that the diameter of these masses were less than 5 cm in all patients. All of them underwent laporatomies, the resected specimens were measured and sent for pathological examinations.

RESULTS

There were 141 ovarian masses found in 97 patients, and 44 patients with bilateral masses. Pathological examinations showed that there were 23 cases of malignant ovarian tumors (23.7%), 61 cases of benign ovarian tumors (62.9%) and 13 cases of physiological masses (13.4%). The diameter of the tumors is from 2.4~8.0 cm. The histological sections showed that there are 36 cases of epithelial tumors, 22 cases of sex cord germ cell tumors, 17 cases of germinoma, 8 cases of metastatic tumors, 1 case of falloppian tube carcinoma and 13 cases of physiological cysts.

Among 97 cases of PMPO, malignant tumors occupied about 23.7%, there are no close relationship with age and nature of malignancy. In the group of patients their age over 70, the malignancy rate increased to 33.3%. In the whole series, the neoplastic tumors occupied about 86.6%, and physioogical masses only 13.4%. The physiological masses decreased with increment of age, there are no physiological masses in the group of patients over 70 year old (Table 1).

Table 1. Age of onset of ovarian tumors

Age of onset (year)	50~	60~	70~	Total
Benign	39(70.9%)	31(86.2%)	4(66.7%)	74(76.3%)
Malignant	16(29.1%)	5(13.8%)	2(33.3%)	23(23.7%)
Physiological	9(16.4%)	4(11.1%)	0(0%)	13(13.4%)
Neoplastic	46(83.6)	32(88.9%)	6(100%)	84(86.6%)
total	55	36	6	97

There are no close relationship between menopause year and incidence of malignancy(Table2).

Table 2. The duration of menopause and characteristics of tumors

Menopausal years	1~	6~	11~	16~	20~	Total
Benign	20(76.9%)	22(75.9%)	14(82.4%)	12(70.6%)	6(75%)	74(76.3%)
Malignant	6(23.1%)	7(24.1%)	3(17.6%)	5(29.4%)	2(25%)	23(23.7%)
Total	26	29	17	17	8	97

From Table 3, we can see that the greater the diameter of the tumor, the higher the incidence of malignancy.

Table 3. Size and nature of ovarian tumor

Size of tumor (cm)	2~	6~
Benign	50(84.7%)	24(63.2%)
Malignant	9(15.3%)	14(36.8%)
Total	59	38

In this group, the preoperative examinations were carried out by manual palpation and ultrasound screening, the diameter of all the tumors were less than 5 cm, but the measurement during the operation showed that there are 38 tumors with a diameter between 5• 8 cm (26.9%). Due to obesity of the patient and presence of ascites, either the tumor in rather high position or irregular in shape, which cannot be palpated clearly by pelvic examination, therefore, there are some discrepency between the preoperative and intraoperative measurement.

Seventy-two patients (74.2%) of our group showed different clinical menifestations, some patients had more than two clinical signs and symptoms. The frequently observed signs and symptoms are; vaginal bleeding in 33, discret low abdomen pain in 37, and increased vaginal discharges in 12.

Twenty-four cases of malignant ovarian tumor patients showed different degree of lower abdominal discret pain, distension of abdomen, loss of body weight, loose bowel movement, urinary frequency and lassitude. The tumors were usually discovered during routine physical examination, among them, 10 patients observed slight discomfort, but patient herself did not notice it, and 22 patients were symptom free all the time.

Eighty patients showed positive findings during pelvic examination, 73 patients were discovered by abdominal ultrasound screening, 46 patients were screened by vaginal ultrasound, all of them were positive. 17 patients were missed by routine examinations. Among them, 9 patients were obese (body weight over 80 kg), in 6 patients their tumor were less than 3 cm in diameter, and 2 patients were uncooperative during the physical examination, as well as the doctors were not well experienced in performing pelvic examination.

DISCUSSION

For woman after menopause, the ovaries become

degenerated with loss of the ovarian follicles, only dense fibro-connective tissues were left, therefore, losing of its functions, and dangling in the posterior lobe of the broad ligment. The normal size of the ovary is 3.5cm×2cm×1.5cm and it could be shrinked to 1.5cm×0.75cm×0.5cm,[1] so it cannot be palpated by vaginal pelvic examination. For a menopausal woman, if ovary can be palpated, it is suggested that there is possibility of tumor existence.

The fact of degeneration and loss of ovary function in a menopausal woman did not suggest that the tumor of ovary does not occur. In our series, 97 patients with PMPO had 141 ovarian masses, neoplastic tumors occurred in 86.6%, among them there was 23.7% of malignancy, and physiological masses only in 13.4%. This indicated that in postmenopausal women, if their ovaries not degenerated or on the other hand with tendency of increasing in size, most of them is with existance of ovarian tumors, and laparatomy is absolutely needed. All the menopausal women should have periodically check up, and PMPO is a useful sign for the early discovery of ovarian carcinoma.

The characteristics of the postmenopausal ovarian tumor seem with no parallel relationship with the duration of menopause (Table 2). With the increment of the age of the patients, the incidence of the physiological ovarian masses decreased. In 50—59 and 60—69 age group, their incidence were 16.4% and 11.1%, respectively. In the patients over 70 years old, there was no physiological ovarian masses observed. On the other hand, the incidence of neoplastic tumors increased with increment of patient's age, due to limited number of cases, no statistical results could be calculated. The incidence of malignancy among age group over 70 was 33.3%, higher than the average incidence of 23.7% (Table 1).

In this series, the size of the tumor was in close relationship with occurrence of malignancy, which was also observed by Rulin.[2] 197 patients with PMPO, if the diameter of the tumor was less than 5 cm, the incidence of malignancy was 15.3% only, if the diameter of the tumor was 5—8 cm, their chance of malignancy was 36.8% (Table 3, $P<0.05$). In all PMPO patients, if their ovaries increase in size obviously, and patient is in old age, the surgical operation should not be hesitated.

The diagnosis of PMPO in 74.2% of the patients in this series was dependent upon the clinical symptoms and signs, which might give us some clues for early diagnosis. Postmenopausal women with slight vaginal bleeding and slight discret lower abdominal pain should be on the alert by gynecological doctor. For excepting the possibility of some serious diseases, the pelvic examinations as well as rectal vaginal pelvic examination should be performed without hesitation. For postmenopausal women with shrinkage of vaginal fornix a experienced gynecologist with careful examination can discover and diagnose exactly about 74.8% PMPO symdrome. Some authors[2,3] had reported much more high rate of accuracy. In the obese patient, and uncooperate patient during examination as well as the tumor mass is rather small, besides pelvic examination, abdominal and transvaginal ultrasound screening can help diagnosis.

Many doctors[3-5] are using Ca^{125} determination together with pelvic examination and transvaginal ultrasonography for the screening of ovarian carcinoma. The accuracy rate for preoperative diagnosis of epithelial ovarian carcinoma is 95%, it is very useful to differentiate the benign and malignant tumors preoperatively. The positive rate of Ca^{125} for stage I noninvasive ovarian carcinoma is only 23%.[6] With integration of transvaginal sonography, the shape and character as well as blood flow of the tumor also can be used as different parameters of tumor markers for identification, and based on this, we can make a rather correct preoperative diagnosis.

For those symptomless postmenopausal women, especially those in high risk group for ovarian carcinoma, such as familier history of ovarian carcinoma, gynecological examination should be performed at least once half a year to once every year. Simultaneously transvaginal ultrasonography should also be performed, because it can correctly discover slightly enlarged ovarian mass, and help to improve the diagnostivc rate of PMPO.

From our experience, every PMPO patient should be treated surgically. The operative procedure may depend upon the specific condition of the patient. If malignancy is highly suspected, laparatomy is a method of choice, in order to obtain optimal operative field. If the possibility of benign tumor is high, peritoneoscopy may be performed and the tumor as well as both adnexes are removed. The cytological examination of the peritoneal wash must be carried out. Careful search for the all parts of the pelvic cavity, and during the operation the tumor should be removed *en bloc*. Frozen section may be made during the operation.

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A RARE 10 PRIMARY CANCERS

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Here we report an unusual case with ten primary cancers. The patient was a 74 years old male and died in 1999. He had had ten primary cancers from 1972 to 1999. 1) Diagnosed as adenocarcinoma in the transverse colon, Duke's B. Transverse colectomy was performed in 1972; 2) Got a squamous carcinoma of left superciliary arch in July 1974 and was treated with surgical resection and local radiation therapy; 3) In November 1974, the polypus with canceration of the sigmoid colon was found; 4) In 1981, got an adenocarcinoma in the lower part of descending colon; 5) In January 1982, got a mucous gland carcinoma in ascending colon; 6) One year later, ulcer type of adenocarcinoma with part of mucous gland was found in descending colon; 7) In October 1989, poorly differentiated adenocarcinoma of colon was diagnosed. The 4 cancers above were all primary cancers in different region of colon, 2 of them were in Duke's B, and metastasized to the mesenteric lymph nodes. Surgical resection and chemotherapy was performed. 8) In February 1990, tarsal gland carcinoma was removed by surgery; 9) and 10) In July 1997, two cancers was found in cardiac part and antral region of stomach, total gastrectomy was done. Both of them were middle to poor differentiated denocarcinoma, and metastasized to lymph nodes. The patient was treated by adjuvant chemotherapy. Intestinal obstruction symptom was occurred in 1998 and 1999, and a fistula of intestine-abdominal wall was occurred in 1999. The patient was died with hemorrhage of upper digestive tract.

Autopsy was done after his death. There was no cancer tissue in the colon, lung, liver and bone. Metastasizes cancer tissue was seen in the fistula, mesenteric lymph nodes and upper part of pancreas. The patient smoked 30 cigarettes per day for more than 40 years. His aunt, sister and two young sisters are all colonic cancer patients.

DISCUSSION

We conclude that the features of this case as follow. The cancers were all primary, mainly located in gastrointestinal tract. Six of them were colon cancers. According to the criterion of the colon cancer, these six colon cancers were diagnosed primary by following reasons: 1) There were more than two cancers on colon occurred on the different parts of colon; 2) They were not metastasizes cancer, because they were solitary and occurred on the wall of the colon but not on the tissues and lymph nodes around colon; 3) The pathologic type of these cancers was different; 4) This case had obvious family history. He might be sensitive to chemotherapy because that all of the cancers achieved CR; the effect of therapy was rarely good.

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