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The Assessment of Malignant Ovarian Tumors in Baghdadian Women

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Abstract

Ovarian cancer is the fourth leading cause of cancer death in women; median age at diagnosis is 63 years. It is highly curable if diagnosed at an early stage, but 75% of its present with stage III or IV disease. Many risk factors have been identified for ovarian cancer like the lifetime ovulatory cycles. The study aimed to define the different presenting signs and symptoms for ovarian cancer, outline the main risk factors responsible for ovarian cancer, and discuss the important points helpful for the prevention and decrease incidence. This retrospective study which included 31 female patients already diagnosed with ovarian cancers and they attended the Alamal National Hospital at period between September 2012 to June 2013. The patients were assessed for the presenting features of the disease and major risk factors of ovarian cancer. There were 15 patients with age less than 50 years and 16 women belong to age 50 years and above. Regarding parity, 10 women were nullipara and 21 were multipara. Three patients only have a positive family history of breast cancer. 13 patients had a history of using hormonal drugs during their life time before they had the ovarian cancer. As a presenting sign and symptom; 14 patients presented with as cites, 10 with mass, 7 with vaginal bleeding and 16 with pain. At the time of diagnosis 17 patients presented with distant metastatic disease. The incidence of ovarian cancer is mainly at age group of ≥50 years. Nulliparity is considered a risk factor for the development of ovarian cancer, in addition to family history after increasing age. The use of oral contraceptive pills is considered a protective factor against the development of ovarian cancer. Most of the cases presented in advanced stage at time of diagnosis. Epithelial tumors comprise the most common type of ovarian cancer and of which serous subtype considered the main subtype.

Keywords: Ovarian cancer; Vaginal bleeding; Nullipara; Serous epithelial tumors; Ovulatory cycles

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Introduction

Ovarian cancer is primarily a disease of postmenopausal women, with most cases occurring in women between 50 and 75 years old. The incidence of ovarian cancer increases with age and peaks at a rate of 61.5 per 100,000 women in the 75-79-year-old age group [1]. The etiology of ovarian cancer is not fully understood, and numerous studies have attempted to demonstrate possible links between environmental, dietary, reproductive, endocrine, viral, and hereditary factors and the risk of developing ovarian cancer. So far, the strongest risk factor for ovarian cancer is a familiar pattern, reported in about 7% of women with the disease [2]. These tumours usually present late and only one-third are localized at the time of diagnosis. Early ovarian cancer is often asymptomatic. When symptoms occur, they are often vague and are overlooked by patients, even when the tumour is locally advanced and abdominal distension has become obvious. Lower abdominal pain, bloating and anorexia are common, but often insufficient to raise suspicion [3]. The CA-125 serum level is elevated in more than 80% of serous epithelial ovarian cancers. However, it is not a reliable diagnostic test, since it can also be elevated in a variety of benign gynecologic conditions (such as endometriosis, pelvic inflammatory disease, or pregnancy) and non-gynecologic malignancies (such as breast, lung, and gastrointestinal cancers). Transvaginal ultrasonography (TVU) is an important diagnostic tool in the evaluation of patients with a pelvic mass [4]. Computed tomography (CT) or magnetic resonance imaging (MRI) may sometimes be helpful in defining the extent of peritoneal disease in patients with suspected ovarian cancer. Chest radiographs may sometimes be performed to evaluate the presence of pleural effusions, which occur in 10% of patients with epithelial ovarian cancer at diagnosis [5]. However, there is currently no proven role for positron emission tomography (PET) in the diagnosis or subsequent follow-up of patients with ovarian cancer [6].

Most of the ovarian malignancies, 65% to 70%, are epithelial, with germ cell tumors (25%), sex cord stromal (5%), and metastases to the ovary (5%) accounting for the remainder. Serous tumors are most common, comprising 40% to 50% of epithelial tumors. Clinically, the mucinous tumors can be very large and can be associated with mucinous tumors of the appendix; therefore, appendectomy is recommended, particularly if the tumor is right-sided [7].

For both early- and advanced-stage ovarian cancer, surgery is the mainstay of diagnosis and initial treatment and this can be accomplished via laparotomy or via minimally invasive techniques (laparoscopy, robotic assistance). Upfront maximal cyto-reduction with the goal of no residual disease should be undertaken, and when primary cyto-reductive surgery is not possible, it should be considered after three to five cycles of chemotherapy in patients who do not have progressive disease [8].

Numerous studies suggest that patients with low-risk, low-grade, early-stage disease do not require adjuvant therapy after definitive surgery has been performed. However, this is a small percent of the women who present with epithelial ovarian cancer, and in all other women, surgery alone is not curative. platinum compounds offer improved survival rates over non-platinum regimens [9].

Because of the unique intraperitoneal dissemination of epithelial ovarian cancer, there has been a significant interest in evaluating intraperitoneal administration of chemotherapy [10].

Regarding management of non-epithelial tumors pretreatment alpha fetoprotein (AFP) and B-human chorionic gonadotropin (B-hCG) levels are of importance in diagnosis and treatment. Variations in surgical management and adjuvant chemotherapy and radiation do exist among the non-epithelial tumors. Treatments should consider the patient's desire to maintain fertility while offering the greatest chance for cure [11].

Methods

Study design and setting

In this retrospective study, 31 female patients with history of ovarian cancer were studied for the variations in clinical presentations and for the assessment of the main risk factors of ovarian cancer.These patients were seen in Alamal National Hospital for Cancer Management by many oncologists in this hospital in the period between September 2012 and June 2013 and this is the duration of this study.

Participants and data collection

The patients were diagnosed with ovarian cancer depending on the histopathological tests and the patients were subjected to different types of surgical intervention as part of the management of their primary ovarian cancer and following surgery they were sent to the Al-Amal Hospital for further management and in this hospital the patients were properly staged to determine the need for adjuvant treatment.

Clinical parameters

Blood tests including (complete blood count, biochemical tests and tumor markers as CA 125, AFP and B-hCG) as well as radiological studies including ultrasound of abdomen and pelvis, CT scans of abdomen and pelvis and CXR.In our study the patients were evaluated depending on detailed history taking to outline the main risk factors for ovarian cancer including (age, marital status, menstrual history, parity, family history and the use of hormonal drugs), also the patients were evaluated depending on the presenting signs and symptoms, the presence of distant metastasis at time of diagnosis, the type of surgery for the primary tumor, histopathological diagnosis and the adjuvant treatment given for these patients following surgery.

Statistical analysis

The statistical analysis was performed using descriptive methods for normal distribution data by obtained frequencies, and percentage.

Results

Socio-demographic variables

In our study, 31 females already diagnosed with ovarian cancer were studied for the presenting signs and symptoms and for the main risk factors for the development of ovarian cancer.

Age distribution in the studied group of patients was divided into 2 groups and the age limit was 50 years as shown in the table (Table 1). Regarding menstrual history in the studied group of patients, the age of menarche for all patients was in the range of (11-14) years while only one patient had a history of irregular menstrual cycle.

In the studied sample of patients, 10 patients are nullipara while the remaining are multipara, as shown in the table (Table 2).

Family history of ovarian cancer was positive in 3 patients in the study as shown in the below table (Table 3). The use of hormonal treatment in the form of contraceptive pills was found in 13 patients of the studied sample as shown in the table (Table 4).

Ovarian cancer variables

The presenting signs and symptoms in the studied sample of patients was divided depending on history taken from the patients as shown in the below table (Table 5).

In this study the number of patients that had metastasis at time of diagnosis was 17 as shown in the table (Table 6). Depending on histopathological reports of the primary tumor of the studied sample of patients, different tumor types appeared as shown in the table (Table 7).

Table 1: Age distribution in the studied group of patients.

Age	Number of patients	Percentage
<50	15	48.40%
≥50	16	51.60%

Table 2: The parity status in the studied group of patients.

Parity status	Number of patients	Percentage
Nullipara	10	32.30%
Multipara	21	67.70%

Table 3: Family history of ovarian cancer in the studied sample of patients.

Family history	Number of patients	Percentage
Positive	3	9.68%
Negative	28	90.32%

Table 4: Hormonal drugs use in the studied sample of patients.

Hormonal drugs	Number of patients	Percentage
Used	13	41.90%
Not used	18	58.10%

Table 5: The presenting signs and symptoms in the studied sample of patients.

Presenting signs & symptoms		Number of patients	Percentage
Ascites	Present	14	45.20%
	Absent	17	54.80%
Pelvic mass	Present	10	32.30%
	Absent	21	67.70%
Vaginal bleeding	Present	7	22.60%
	Absent	24	77.40%
Incidental diagnosis	Present	16	51.60%
	Absent	15	48.40%

Table 6: The presence of metastasis at time of diagnosis in the studied sample of patients.

Metastatic disease	Number of patients	Percentage
Positive	17	54.80%
Negative	14	45.20%

Table 7: Different histopathological types of the primary tumor.

Histopathological type	Number of patients	Percentage
Serous cystadinocarcinoma	15	48.40%
Endometroid carcinoma	4	12.90%
Mucinous carcinoma	4	12.90%
Germ cell tumor	3	9.70%
Granulosa cell tumor	2	6.50%
Sex cord tumor	1	3.20%
Clear cell carcinoma	1	3.20%
Fibrosarcoma	1	3.20%

Discussion

This study was a retrospective study which mainly concentrated on the clinical presentation and main risk factors of ovarian cancer and in this study the age distribution for ovarian cancer was mainly in the age group of ≥50 years as there were sixteen patients (51.6%) in this age group and this result is consistent with a study conducted by Stephen C. and colleagues which stated that Ovarian cancer is primarily a disease of postmenopausal women, with the large majority of cases occurring in women between 50 and 75 years old [1]. Another study published in the National Cancer Intelligence Network which stated that the age-specific incidence rates rise steadily with age, peaking among women in their 70s and 80s. The numbers of cases are highest among women in their 60s and 70s, accounting for almost halfthe diagnoses [12].

Nulliparity was found to be a risk factor for the incidence of ovarian cancer in the studied group of patients as ten patients were nullipara (32.3%) and this result disagreed with a study done by Bristow et al. (1996) which stated that nulliparity is associated with an increased risk of ovarian cancer [13].

Three patients (9.68%) in this study had a family history of ovarian cancer, and this is inconsistent with a study conducted by Cook (2002) which stated that Women with one first-degree relative with ovarian cancer have a 5% lifetime risk and women with two or more first-degree relatives have a 7% risk. The risk is greater for the sisters and daughters than for the mother [14]. Another study done by Risch et al. (2001) confirmed this result and it stated that after controlling for age, the strongest risk factor for ovarian cancer is a family history of ovarian cancer and the incidence of ovarian cancer attributable to genetic factors is estimated to be in the range of 5 to 10% [15].

The use of oral contraceptive pills is considered as a protective factor against the development of ovarian cancer and in our study eighteen patients (58.0%) with ovarian cancer were not using contraceptive pills and this result is confirmed by a study conducted by Purdie et al. (1995) which stated that The association between female reproductive organ cancer and use of OCP has been studied for decades, with OCP consistently shown to reduce the risk of ovarian cancer. Ever use of OCP has been shown to decrease ovarian cancer risk by 40 to 50% compared with never use [16]. Another study which confirmed this issue was conducted by SchlesselmanJJ et al. (1995) and it stated that the risk of ovarian cancer is reduced by 40%, 53%, and 60% with oral contraceptive use for 4, 8, and 12 years, respectively [17].

Sixteen patients (51.6%) presented incidental diagnosis (dyspepsia, nausea, early satiety, bloating and constipation) and those considered as common presenting symptoms and this result is consistent with a study conducted by Yawn and colleagues which stated that bowel irritability and other nonspecific symptoms can be present for several months but do not trigger diagnostic evaluation until after the symptoms fail to clear with other medical therapy [18].

In the studied group, ten patients (32.3%) presented with pelvic mass and this result is consistent with a study published by the (ACOG Committee Opinion) which stated that detection of early-stage disease can occur by palpation of an asymptomatic adnexal mass on routine examination. However, most adnexal masses require moderate size for palpation. In premenopausal women, most of these masses are not malignant, and ovarian cancer represents fewer than 5% of adnexal neoplasm. An adnexal mass in a postmenopausal woman has a higher likelihood of malignancy [19].

Seven patients (22.6%) of the studied sample presented with vaginal bleeding and this presenting sign is confirmed by the result of a study conducted by Bankhead C. and colleagues which stated that abnormal vaginal bleeding (menorrhagia, missed or irregular periods, post-menopausal bleeding and post-coital bleeding) are associated with ovarian cancer [20].

Regarding ascites as a presenting sign, in this study, fourteen patients (45.2%) presented with this symptom at time of diagnosis and this result is consistent with a study done by DiSaia P (2002) which stated that ascites is the most common presenting sign for ovarian cancer evidenced by a fluid wave or shifting dullness and is associated with advanced-stage disease. Ascites is suspected by clinical symptoms, such as increasing abdominal girth, or ultrasound results [21].

Epithelial type of ovarian cancer was the main type in the studied group of patients (81%) followed by germ cell tumor, granulosa cell tumor and then other less common types of ovarian cancers and this result is consistent with a study done by Scully and colleagues which stated that the majority of ovarian malignancies, 65% to 70%, are epithelial, with germ cell tumors (25%), sex cord stromal (5%), and metastases to the ovary (5%) accounting for the remainder [22].

In the studied sample, the serous type of ovarian cancer was the most common type accounting for 48.4% of the cases and this is consistent with a study conducted by Sugiyama and colleagues which stated that serous tumors are most common histological type of ovarian cancers, comprising 40% to 50% of epithelial tumors [23].

Metastatic ovarian cancer presented in seventeen patients (54.8%) who presented with advanced stage at time of diagnosis and this result is consistent with a study conducted by Jemal A, et al. (2002) which stated that metastatic ovarian cancer is a considerable public health problem in the United States, affecting more than 75% of the women with ovarian cancer at the time of diagnosis and by definition, such patients have tumors that have spread beyond the ovary itself, usually involving the pelvis and upper abdomen [24,25].

Conclusions

The incidence of ovarian cancer was mainly in the age group of ≥50 years. Nulliparity was found in (32.3%), thus, it was considered a risk factor for the development of ovarian cancer. The use of OCP is considered a protective factor against the development of ovarian cancer. Most of the cases presented in advanced stage at time of diagnosis as metastatic ovarian cancer. An epithelial tumor comprises the most common type of ovarian cancer and of which serous subtype considered the main subtype.

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References

1. Pazdur R, Wagman LD, Camphausen KA, Hoskins WJ (2011) Cancer management: A multidisciplinary approach: medical, surgical & radiation oncology. (12th edtn), CMP Medica, United Kingdom.
2. Schildkraut JM, Thompson WD (1988) Familial ovarian cancer: A population-based case control study. Am J Epidemiol 128: 456-466.
3. Tobias J, Hochhauser D (2009) Cancer and its Management. (6thedtn), John Wiley & Sons, United States.
4. Bast RC, Knapp RC (1985) Use of the CA 125 antigen in diagnosis and monitoring of ovarian carcinoma. Euro J Obstet Gynecol Reprod Biol 19: 354-356.
5. DeVita VT, Lawrence TS, Rosenberg SA (2008) Cancer: Principles & Practice of Oncology. (8thedtn), Lippincott Williams & Wilkins, United States.
6. Markman M (2002) The use of PET scanning in ovarian cancer. Gynecol Oncol 85:391.
7. Halperin EC, Perez CA, Brady LW (2008) Principles and Practice of Radiation Oncology. (5th edtn), Lippincott Williams & Wilkins, United States.
8. du Bois A, Quinn M, Thigpen T, Vermorken J, Avall-Lundqvist E, et al. (2005) 2004 consensus statements on the management of ovarian cancer: final document of the 3rd International Gynecologic Cancer Intergroup Ovarian Cancer Consensus Conference (GCIG OCCC 2004). Ann Oncol 16: viii7-viii12.
9. Advanced Ovarian Cancer Trialists Group (1991) Chemotherapy in advanced ovarian cancer: an overview of randomised clinical trials. BMJ 303: 884-893.
10. Armstrong DK, Bundy B, Wenzel L, Huang HQ, Baergen R, et al. (2006) Intraperitoneal cisplatin and paclitaxel in ovarian cancer. N Engl J Med 354: 34-43.
11. Gershenson DM, Morris M, Cangir A, Kavanagh JJ, Stringer CA, et al. (1990) Treatment of malignant germ cell tumors of the ovary with bleomycin, etoposide, and cisplatin. J Clin Oncol 8: 715-720.
12. National Cancer Intelligence Network (2012) Overview of Ovarian Cancer in England: Incidence, Mortality and Survival. Trent Cancer Registry, United Kingdom.
13. Salehi F, Dunfield L, Phillips KP, Krewski D, Vanderhyden BC (2008) Risk factors for ovarian cancer: an overview with emphasis on hormonal factors. J Toxicol Environ Health B Crit Rev 11: 301-321.
14. Cook J (2002) Family history of ovarian cancer. Current Obstet Gynecol 12:47-51.
15. Risch HA, McLaughlin JR, Cole DE, Rosen B, Bradley L, et al. (2001) Prevalence and penetrance of germline BRCA1 and BRCA2 mutaions in a population series of 649 women with ovarian cancer. Am J Hum Genet 68: 700-710.
16. Purdie D, Green A, Bain C, Siskind V, Ward B, et al. (1995) Reproductive and other factors and risk of epithelial ovarian cancer: an Australian case-control study. Int J Cancer 62: 678-684.
17. Schlesselman JJ (1995) Net effect of oral contraceptive use on the risk of cancer in women in the United States. Obstet Gynecol 85:793-801.
18. Yawn BP, Barrette BA,Wollan PC (2004) Ovarian cancer: the neglected diagnosis. Mayo Clin Proc 79:1277-1282.
19. ACOG Committee on Gynecologic Practice (2003) The role of the generalist obstetrician-gynecologist in the early detection of ovarian cancer. Int J Gynaecol Obstet 80:235-238.
20. Bankhead CR1, Collins C, Stokes-Lampard H, Rose P, Wilson S, et al. (2008) Identifying symptoms of ovarian cancer: a qualitative and quantitative study. BJOG 115:1008-1014.
21. DiSaia P, Creasman WT (2002) Clinical gynecologic oncology. (6thedtn), Mosby, United States.
22. Scully R, Young RH, Clement PB (1998) Tumors of the ovary, maldeveloped gonads, fallopian tube, and broad ligament. In: Atlas of tumor pathology, 3rd Series, Armed Forces Institute of Pathology, United States.
23. Sugiyama T, Kamura T, Kigawa J, Terakawa N, Kikuchi Y, et al. (2000) Clinical characteristics of clear cell carcinoma of the ovary: a distinct histologic type with poor prognosis and resistance to platinum-based chemotherapy. Cancer 88:2584-2589.
24. Jemal A, Thomas A, Murray T, Thun M (2002) Cancer statistics, 2002. CA Cancer J Clin 52:23-47.
25. Memarzadeh S, Berek JS (2001) Advances in the management of epithelial ovarian cancer. J Reprod Med 46:621-629.