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Ovarian tumours

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Summary

Malignant ovarian tumors account for 4% of all cancers and the leading cause of gynecological cancer death in the world. We conducted a retrospective study over a period of 30 months in the gynecology department of Sheikh Zayed Hospital in Nouakchott, the study population consisted of all patients operated for a malignant tumor of ovary during the study period. The average age was 48 years with extremists from 18 years to 78 years , the fiGO stage was specified in 48 cases or 96% of the cases , stage I 3 cases (6%) ,stage II 2 cases (4%), stage III 29 cases (58%), stage IV 14 cases (28%). Surgery was performed in all patients in a conventional manner (xiphoid median laparotomy), the progression was marked by the occurrence of 24 deaths (48%) ,16 live without recurrence (32%)), 4 patients with recurrence (8%) and 6 patients lost sight (12%). Survival over a 30-month period averaged 10.23 months with a minimum of 0 days and a maximum of 30 months. Ovarian cancer is discovered at a late stage from which the prognosis is often bleak. Surgical treatment remains the basic treatment for ovarian tumors.

Key wold : cancer ,ovairy.

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INTRODUCTION

Ovarian cancer accounts for 4% of all cancers and is the 5th most common cancer in women and the leading cause of death from gynaecological cancer worldwide. [1]. Several types can be distinguished according to the tissue of origin, of which epithelial tumours are the most frequent and represent approximately 65% of ovarian cancers [1]. 2/3 of ovarian cancers occur after the age of 55 with misleading symptoms and late diagnosis in 70%. Surgery remains the keystone of treatment for these tumours, after histological diagnosis and

satisfactory tumour removal, which must be as complete as possible from the start. It is a chemo-sensitive disease that has benefited from therapeutic advances in recent years concerning chemotherapy and the development of targeted therapies, particularly antiangiogenic ones. The prognosis of the disease remains very unfavourable: 5-year survival, which is close to 90% for stage I, drops to 33% for stages 3 and 4 [1].

Method

This is a 36-month retrospective study carried out in a gynaecology department (Sheikh Zayed Hospital, Nouakchott). A series of 50 patients operated on between 1 January 2015 and 30 June 2017. The data were collected from the patients' files in the gynaecology department of the Sheikh Zayed hospital, the register of anapathology of the national hospital of Nouakchott and the register of the oncology centre.

Results

Out of a total number of 50 patients with ovarian cancer representing 17% of the cancers treated during this period in the gynaecology department of the Sheikh Zayed hospital in Nouakchott. The average age was 48 years with a range of 18 to 78 years, the most affected race was Arab-Berber (Moorish) 85% of cases against 15% for the black race. 24 patients were nulliparous, i.e. 48%, 14 were pauciparous, i.e. 28%, and 12 were multiparous, i.e. 24%. The most frequent associated pathologies were arterial hypertension in 34 patients (68%) and diabetes in 24 patients (48%). Pelvic pain was the most frequent clinical sign in 18 patients (36%), and an increase in abdominal volume in 18 patients (36%).

Ultrasound was requested in 50 patients (100%). Unilateral location in 27 patients (54%), bilateral location in 23 patients (46%), macroscopic appearance of the tumour was multilocular cystic in 24 patients (48%) and solidocystic in 6 patients (12%), solid in 16 patients (32%), simple cystic in 4 patients (8%) CT scans were requested in 27 patients (54%) with metastases in 22 patients (44%), lung x-rays were requested in 39 patients (78%) with abnormalities in 18% of cases.Tumour marker ca125 was requested in 35 patients or 70% of cases and was positive >a 35 in 88.5% (31/35), CEA was positive in 4/8 of cases. Cytology was positive in 85% of cases, the most frequent histological types were serous tumours (cystaadenocarcinoma) in 18 patients, i.e. 36%, mucinous tumours in 13 patients, i.e. 26% of cases, in total epithelial tumours represented 94% of cases. The FIGO stage was specified in 48 cases, i.e. 96% of cases, stage I (3 cases) 6%, stage II 2 cases (4%), stage III 29 cases (58%), stage IV 14 cases (28%). Surgery was performed in all patients in a conventional manner (median xiphoid laparotomy), total hysterectomy with bilateral adnexectomy in 15 cases or 30%, total hysterectomy with bilateral adnexectomy, omentectomy and appendectomy were performed in 3 cases or 6%, Total hysterectomy with bilateral adnexectomy and omentectomy were performed in 7 cases (14%), tumour reduction in 8 cases (16%), cystectomy in 2 cases (4%), bilateral adnexectomy in 3 cases (6%) and biopsy in 12 cases (24%). The average hospital stay was 9.33 days with a maximum of 26 days and a minimum of 1 day. 35 patients received adjuvant chemotherapy (70%) based on platinum salt and taxane. The evolution was marked by the occurrence of 24 deaths (48%), 16 alive without recurrence (32%), 4 patients with recurrence (8%) and 6 patients lost to follow-up (12%).

Survival over 30 months was on average 10.23 months with a minimum of 0 days and a maximum of 30 months

DUSCUSSION

Ovarian cancer is one of the most common pelvic cancers in women [2]. The overall incidence of ovarian cancer in Europe and America is 11/100,000 women per year. Worldwide, developing countries have lower rates in general [3]. In contrast, the highest rates are 17.2 per 100,000 women years in selA [4]. In Canada, ovarian cancer is the fifth most frequently diagnosed cancer and the fifth leading cause of cancer deaths in Canadian women [5]. The ratio is 5 to 6 between high and low incidence countries [3]. It should also be noted that it is more common in white populations [3]. This corresponds to an overall lifetime risk of 1/70 for a woman to develop ovarian cancer [6], but it is the leading cause of death from gynaecological cancer. According to the registry of the National Hospital of Nouakchott (Mauritania) from 2009-2015, ovarian cancer is the third most common gynaecological cancer in women (8.3%) after breast cancer (30.9%) and cervical cancer (23.2%). Ovarian tumours can occur at any age in young women but also in older women with an incidence that rises after the age of 40 and peaks in the eighth decade of life [7]. The median age at diagnosis of ovarian cancer is 65 years, only 5% of ovarian cancer cases occur before the age of 40 years, it is essentially a tumour of the postmenopausal woman [8]. In our series the mean age was 48.64 ±14.84 years (minimum18 and maximum 78 years) and 75% of them were older than 40 years with a peak between 41-50 years (32%) of cases. Global estimates show a peak incidence of ovarian cancer between 65-74 years [9]. The leftward shift from 41-50 years observed in our study compared to the global trend could be explained by the low life expectancy of women in Africa in general. Ovarian cancer is more frequent in the white race compared to the black race [4] which is compatible with our study which showed the same results. Ovarian cancer is much more frequent in nulliparous women than in multiparous women, so the risk is reduced according to the number of children (multiparity), the risk is less if the number of children is greater [10].

In our series we found a predominance of nulliparous patients or those with few children (77%). Hypofertility is a recognised risk factor, the relative risk is 2.63 for a woman who tries to get pregnant for 5 years compared to a woman whose pregnancy occurs within one year [11]. Some authors have incriminated hypofertility treatments such as clomiphene and gonadotropin [12], but the latest studies are reassuring [9]. The age of onset of menstruation was a controversial risk factor. The two main risk factors cited by the authors were incessant ovulation and exposure to gonadotropins. However, some authors consider that there is no link between the age of puberty and ovarian cancer [13]. The gonadotropin theory explained by the high level of FSH and LH during the menopause are the cause of cancerous processes, so an early menopause favours the occurrence of ovarian cancer; on the other hand, a late menopause is a risk factor according to the theory of incessant ovulation [14].The contradiction in both cases is said to be due to the unknown mechanism of ovarian cancer and the multiplicity of risk factors. Pelvic pain was the most frequent sign at the time of diagnosis, often pelvic heaviness and rarely acute pain, which can be seen in the case of complications or neuralgia due to invasion of the nerve plexus [7]. In our series, pain was present in 36% of cases, and the volume of the abdomen is increased if there is ascites or a large tumour or both. Hiyari[15] reported 77% of cases of abdominal enlargement, SANDO[16] reported 55.67% of cases, while Dargent[3] found only 28.4% of cases. Haidar[4] found 20.9% of cases with an altered general condition revealing ovarian cancer. Bonnamy [11] reported 4% of cases of altered general condition revealing a malignant ovarian tumour.

In our series, alteration of the general state is present in 35% of cases, this alteration of the general state is due to the delay of consultation.Ultrasound is an examination used primarily for the diagnosis of ovarian tumours because of its simplicity, safety and low cost. It gives information that guides the diagnosis but not exactly and does not provide any information on the histological type [17]. Transparietal ultrasound

is of multiple interest: it allows the ovarian origin of the tumour to be specified, to study echogenicity, to look for associated ascites, to suspect malignancy and to serve as a check-up of extension and to follow the subsequent evolution during and after treatment [18]. Since the nineties, endovaginal ultrasound has made it possible to approach the pelvis in a new way. In our series, tumours with a cystic appearance represent the majority of cases, i.e. 56%, with respectively (miltuclone cystic tumour 48% simple cyst 8%), while 32% of cases are tumours with a heterogeneous appearance, and tumours with a solidocystic appearance constitute 12% of cases. CT is useful especially for large tumours to show their anatomical relationships with the other viscera and with the abdominal wall. It visualises fat density and provides information on vascularisation.

It is part of the preoperative extension assessment and may also be useful in monitoring and diagnosing recurrence at an early stage. In our series, CT was performed in 54% of cases with peritoneal metastases in 22 cases (81.4% of cases). MRI is a more expensive but more reproducible and less operator dependent alternative to endovaginal ultrasound with colour doppler [18]. Lung X-ray is used to detect pulmonary and pleural metastases and to highlight other thoracic pathologies as part of the preoperative work-up [19]. In our series, X-ray was requested in 78% of cases or showed suspicious images in 18% of cases. Several tumour markers are requested in ovarian cancer ca125, ca19-9 and CEA but they lack both specificity and sensitivity. Only CA125 is currently of interest in clinical practice. However, its reliability in primary prevention is insufficient since only 50-60% of stage I ovarian cancers have an elevated CA125 with a very low positive predictive value (10%) [12].It can be elevated in other malignant or benign pathologies, for this reason it is not a major element for diagnosis but rather for surveillance and evolution. It is a marker of epithelial tumours of the ovary and indicates serous maturation. It is elevated in serous epithelia and this elevation can be considerable in relation to the size of the tumour mass. In our series, CA125 was requested in 70% of cases, of which it was increased in 90% and normal in 10%. CA19-9 is elevated in mucinous forms, these tumour markers can be elevated in other malignant or benign pathologies. and for. For this reason they do not constitute major elements for the diagnosis but rather for monitoring and evolution. In our series no case was performed Carcinoembryonic antigen (CEA) is found to be elevated in 13-80% of ovarian tumours, mainly in mucinous tumours of clear cell cancers and endometrial cancers. However, other cancers are known to secrete sometimes higher amounts of this antigen, mainly colorectal cancers. In our series the CarcinoEmbryonic Antigen (CEA) was positive in 4 out of 8 patients and the Alpha Fetoprotein (AFP) was elevated in the two patients who performed the assay. In postmenopausal women, malignancies are often diagnosed at a late stage [9]. This confirms the statement that ovarian cancer is often diagnosed at advanced stages, as the disease is often insidious and without apparent clinical signs, but also patients often do not consult until several months (on average 6 months) after the first symptoms appear. According to a study on the incidence of ovarian cancer in France, stages III and IV are recorded in two thirds of cases [20].

In our series, 89% of ovarian cancers were diagnosed at stages III and IV with a rate of 60% and 29% respectively. Classically, epithelial tumours were the most frequent histological type [21]. In our series, the most frequent histological type was epithelial tumour with 94% of cases, stromal tumours and tumours of the sexual cord represented 6%, this result is in accordance with the proportion found by Sandoz et al. with 6.67% [16]. Serous cystadenocarcinoma is the most frequent histological type, according to the majority of studies: [1,16]. In our series we found 36% of cases of serous cystadenocarcinoma and 26% of mucinous cystadeno carcinoma, The low proportion of endometrioid types was explained by the low prevalence of ovarian endometriosis in Africa compared to developed countries [16]. In our study endometroid carcinoma was found in 1.6% of cases. We found 10% of undifferentiated carcinomas.

The treatment of ovarian cancers has undergone a remarkable evolution with a prognosis that still remains poor. It is a multidisciplinary treatment associating in the majority of cases surgery, which remains the first-line treatment, with chemotherapy [22-23]. The choice of treatment is discussed at a multidisciplinary consultation meeting The choice of treatment is discussed at a multidisciplinary consultation meeting (RCP) attended by doctors of different specialities (gynaecologists, surgeons, oncologists), who together draw up a treatment proposal and discuss it with the patient. Surgery is the reference treatment for ovarian cancer and aims to remove the entire tumour and cancerous cells and any extensions to neighbouring organs.The aim of surgery is to remove all visible cancerous lesions. This surgery requires multidisciplinary teams (gynaecological and digestive surgery). Classical conservative surgery is the conservation of at least part of an ovary and the uterus in the case of young patients who wish to preserve their fertility in the early stages. It can be uni or bilateral cystectomy, oophorectomy or adnexectomy. The results of this type of surgery are excellent but the risk of recurrence is higher than with radical treatment but it does not affect survival. Radical surgery: this involves the most complete removal possible, total extra facial colpohysterectomy with bilateral annecxectomy. Given the risk of recurrence at this level, the lumbo-ovarian pedicles must be cut as high up as possible, Omentectomy in {infracole} when there is no visible peritoneal dissemination and {infrastric} in the opposite cases, appendectomy: perhaps the site of metastases (mucinous tumours) and pelvic and lumbo-aortic lymphadinectomy. This is often performed by the transperitoneal route [24] to improve recurrence-free survival in patients with advanced ovarian cancer[23].

Surgical laparoscopy has been developed thanks to technical progress, and in addition to these advantages in the treatment of benign and borderline ovarian tumours, it can be used for the staging of cancers in the absence of an initial extension work-up, and for the evaluation of operability in order to decide on possible first chemotherapy (open laparoscopy) in advanced stages. Follow-up of patients already treated (second look) and bilateral adnexectomy in patients at high genetic risk of ovarian cancer.The main risk is dissemination into the abdominal cavity and conversion in the case of infiltrating or early stage cancer [24]. Chemotherapy used in the majority of ovarian cancers, the indications are adapted to the tumour stages, hystopronostic grade, histological type and possible macroscopic tumour residue, the products used are alkylating agents and cyclophosphamide, the prognostic factor remains the quality of the surgical exeresis which must involve the maximum amount of tumour tissue. The results of certain studies are in favour of the intra-peritoneal route (20-25% reduction in the risk of death when cis platinum is administered intra-peritoneally rather than by the venous route). The combination of platinum salt and pactitaxel is considered by many authors as a standard first-line chemotherapy for advanced ovarian cancer. The duration of treatment varies between teams. For the majority of teams it is 6 to 12 months. Surgery was performed in all our patients but was only radical (large) in 7 cases (14%) due to the advanced stage of our patients, chemotherapy was administered in 35 patients (70% of cases). The use of radiotherapy has decreased over time probably due to the development of effective chemotherapy molecules [21]. Radical surgery is usually performed (colpohysterectomy with annecxectomy, total omentectomy and pelvic and lomboaortic lymphadinectomy) and is completed by prolonged adjuvant chemotherapy for one year, as the risk of recurrence is not zero. The mean survival time is 10.23 months with extremes from 0 to 30 months. this is much less than the time found in a study in Morocco 2017 where the mean survival is 33.46 months with extremes from 3 to 47 months.[25]

CONCLUSION:

Ovarian cancer is not common in gynaecological cancers, usually discovered at a late stage from which the prognosis is often poor. The affected population has the following characteristics: advanced age and low parity. Surgical treatment remains the basic treatment for ovarian tumours with a broad indication and is the first choice of treatment. It is complemented by chemotherapy and radiotherapy if indicated.

Conflicts of Interest

The authors declare no conflicts of interest.

Authors' Contributions

All authors contributed to the development and implementation of this work. The authors also declare that they have read and approved the final version of this manuscript.

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