International Journal of Gynaecology and Obstetrics Research
www.gynaecologyjournal.in
E-ISSN: 2663-3612, P-ISSN: 2663-3604
Received Date: 26-02-2020; Accepted Date: 20-03-2020; Published: 19-04-2020
Volume 2; Issue 1; 2020; Page No. 01-05

Ovarian cancer in African women: Diagnostic and therapeutic strategies, from 1996-2007, in the department of gynecology and obstetrics, donka national hospital, Conakry teaching hospital, guinea

Camara Moussa Kantara[1*], Léno Daniel William Athanase[2], Magassouba Mamoudou[3], Kaba Karamo Taliby[4], Hyjazi Yolande[5], Kéita Namory[6]

[1, 2, 3, 4, 5, 6] Assistant professor of Gynaecology and obstetrics, University of Gamal Abdel Nasser in the Conakry and Gynaecology and obstetrics unit at Donka national hospital, Guinea

[1, 2] Assistant Head of clinic, University of Gamal Abdel Nasser in the Conakry and Gynaecology and obstetrics unit at Donka national hospital, Guinea

[3, 4] Professor, deputy head of unit, University of Gamal Abdel Nasser in the Conakry and Gynaecology and obstetrics unit at Donka national hospital, Guinea

[5, 6] Professor, Head of unit, University of Gamal Abdel Nasser in the Conakry and Gynaecology and obstetrics unit at Donka national hospital, Guinea

Abstract
The objectives of this study were to determine the circumstances and to evaluate the diagnosis and operative strategies. This was a 12-year cross-sectional, from November 1st, 1996, to October 31st 2007, concerning the folders of treated patients for histologically confirmed ovarian cancer. The variables were quantitative and qualitative. The evaluation of diagnosis methods with negative predictive value (NPV) and the relation between two variables using Chi2. Epi info 7 were used analysis. We collected 52 confirmed cases of cancer from 423(12.29%) ovarian cysts. The patients were pauciparous (38.46%), aged 45 years and over (80.77%), with extremes of 14 and 70 years. Pelvic pain and urinary disorders were the main functional signs in 100%. The diagnosis ultra sono graphic and anatomy-pathological correlation was 41/46 malignancy confirmations, i.e a NPV of 89.13%, a sensitivity of 78.84% and a specificity of 98.66%. CA 125 values greater than 35 IU / ml were correlated in 27/34 (79.41%), including 17 Positive Predictive Value (PPV) serous cystadenocarcinomas of 71.05%, a sensitivity of 79% and a specificity of 90.43%. Total hysterectomy was performed in 38 cases, 73.08%. Death was recorded in 11 cases (21.15%). The poor prognosis is linked to the.

Keywords: African women, Strategies, gynecology, Conakry

1. Introduction

Ovarian cancers are malign proliferative processes developed at the expense of the tissue ovarian, primitive or secondary, of cystic, solid or mixed appearance, whose growth is not directly related to hormonal dysfunction [1].Ovarian cancer accounts for more than 225,000 new diagnostic cases worldwide every year. Incidence rates are higher in the United States and northern Europe and lower in Africa and Asia [2].Ovarian tumors raise several diagnostic problems. The frequent latency of cancer makes it possible for the woman to realize it only when the tumor begins to be perceptible in the abdominal wall. The anatomical situation profound absence of the ovary and the absence of a specific symptomatology explain its inaccessibility to screening and early diagnosis. The discovery is made during a systematic gynecological examination or a pelvic or abdominal ultrasound. The diagnostic approach is to eliminate functional cysts and to affirm the benign or malign nature of the ovarian tumor. A number of false positives leads to initial abdominal operations sometimes unnecessary. The treatment of ovarian tumors is essentially based on surgery and chemotherapy. The caution of gynecologists is to operate any presumed organic cyst and to send the operative specimen to the pathologist for the histological diagnosis. This surgery is often impossible in the advanced stage of the disease, which is the main cause of death from gynecological cancer [2]. The objectives of the study were to determine the circumstances of discovery and to evaluate the diagnostic and therapeutic strategies of ovarian cancer in our work context.

2. Methodology

This was a retrospective, cross-sectional study conducted over a period of 12 years from 1 November 1996 to 31 October 2007, in the Department of Gynecology and Obstetrics at the Donka National Hospital of Conakry University Hospital. The variables studied were quantitative (age, parity, tumor size, CA 125 level and prognosis), and qualitative (occupation, circumstances of discovery, antecedents, nature, evolutionary stage, histological type, and therapeutic modalities).

The approval of the hospital authorities representing the national ethics committee allowed us to extract the files of the patients treated in the service for a histologically confirmed ovarian cancer among those of the ovarian cysts and to include them in the present study.

The data was entered on pre structured questionnaire and analyzed using the Epi info 7. The examination of the correlation

of diagnosis methods was performed on the negative predictive value (NPV) and the link between two qualitative characteristics. Doppler ultrasonography, laparoscopy, histo-micro-biochemistry and radiotherapy are not available.

3. Results

Overall prevalence: (Chart1). During the study period, we collected 423 histologically diagnosed ovarian cysts, of which 52 cases of cancer represented 12.29%.

Patient age: (Histogram chart 2). The woman with cancer was aged 45 and over in 80.77% with extremes of 14 and 70 years. The age group 65 years and over the most exposed, 29 (55.77%), followed by the age group 45-54, 10 (19.23%).

Parity of the patients: (chart 3). Paucipares were more numerous (38, 46%) than primiparas and multiparas in 15 (28.8%) and 14 (26.9%), respectively.

Circumstances of the disease: (Table I).Pelvic pain and urinary disorders were 100% functional. These signs were associated with digestive disorders 46 (88.46%), abdominal-pelvic mass sensations (57.62%), and impairment of general condition 16 (30, 77%).

Diagnosis: (Text 1). The clinical-based diagnosis strategy that refers to any ultrasound examination in 46 cases of suspected preoperative cancer in any ovarian mass, with a large size of> 100 mm in 34 cases (65.38%). echogenicity (57.69%), multilocular solid (40.38%) and / or fluid (59.62%) heterogeneous content, by the presence of vegetation's 33 (63.46%) and the thickness of the wall (73.08%), with or without ascites.

In these cases, the CA125 marker was assayed by 34 patients, ie 68% of the cases, of which 27 (51.92%), had a level> 35 IU / ml against 7 (13.46%) <35 IU / ml. histological examination with confirmed 41 ovarian cancers out of 46 suspected and diagnosed 11 other cases on cysts presumed benign preoperatively including nine organic and two so-called "functional".

Prognostic Distribution: (Table I). Of the cases of CA125> 35 IU / mm1, 17/27 were confirmed serous cyst adenocarcinoma, 4 (14.81%) Teratocarcinoma, 3 (11.11%) endometrial cyst adenocarcinoma, 2 (7.41%) and mucinous cyst adenocarcinoma 1(1.92%).

Clinical Distribution: Table II (FIGO 2009). Patients were operated on at stage III in 38 cases (73.08%), followed by stage II 12/52 (23.07%) and stage 2 (3.85%).

Distribution by histological type: (Table III).Of the histological types, serous cyst adenocarcinoma was the most common 19/52 (36.54%), followed by Teratocarcinoma 13/52 (25%), mucinous cyst adenocarcinoma 6/52 (11.54%), endometrioid 5/52 (9.62%), malignant ovarian goiter 4/52 (8%), Krükenberg tumor 3/52 (5.77%), and endocrine tumor 1/52 (1.92%).

Distribution by therapeutic attitude: (Table IV). Regarding surgery, the total non-conservative hysterectomy technique was performed in 38 cases (73.08% v followed by that of colpohysterectomy enlarged at lymphadenectomy (CHL), in 6 (11.54%), and in total hysterectomy with unilateral adnexectomy 3 (5.77%). Conservative surgery accounted for 4 cases (7.62%) including ovariectomy (1.92%) depending on the stage and young age of the patients involved. Surgery of the second Look was performed in 4 patients, i.e 7.62%.

Of the patients, 16 (30.77%) had received chemotherapy, including 10 (19.23%) at the FIGO III stage, 4 (7.62%) and 2 (3.85%) stage I.

Radiotherapy was recorded in only one case (1.92%) by a stage III patient.

Breakdown by length of stay: (Histogram Chart4). The average duration of hospitalization was 7.5 days with extremes of 0-45 days. Mostly the discharge was made in less than 7 days in 42 cases (80.77%), in the interval of 7-15 days, 7 (13.46%), and beyond, 3cas (5.77%).

Prognosis distribution: (Table V)

- **Morbidité:** The parietal complications were most numerous in 20 cases (38.46%), of which 8 (15.38%) for induration and suppuration each and hematoma in 4 (7.62%).Vascular and lymphatic complications accounted for 3 (5.77%) and 2 (3.85%), respectively. The recurrences were recorded in 6 cases or 11.54%, hence the second look surgery
- **Mortality**: A total of 11 deaths was recorded in 29%.

4. Statistical analyzes

Regarding the diagnosis correlation between ultrasound and examination of pathological anatomy and cytology, it was 41/46 confirmations of malignancy, i.e. a VPN of 89.13%, a sensitivity of 78.84% and a specificity of 98, 66%.

CA 125 values greater than 35 IU / ml were correlated with the histological result in 27/36 (75%) cases, including 17 serous cyst adenocarcinomas with a Positive Predictive Value (PPV) of 71.05%, a sensitivity of 79%. and a specificity of 90.43%. **(**Tableau VIII**).**

The correlation between macroscopic and histological was 45/52 (86.69%) with a VPP of malignancy of 89.13% for a sensitivity of 78.84% and a VPN of 97.11% for a specificity of 98.66%. (Table IX**).**

5. Discussion

The rate of ovarian cancer compared to operated ovarian cysts is higher than those of 4%, 6, 9% and 6.13% reported respectively by Benhessou M at CHU Ibn Rochd of Casablanca (Morocco), [3], by Lokossou A *et al*. [4], at the University Clinic of Gynecology and Obstetrics (CUGO / CNHU-HKM), Cotonou (Benin), and Sy T [5], the Clinic of Gynecology and Obstetrics at the Ignace National Hospital Deen de Conakry in 2007. In Lomé, Akpadza K. *et al*. [6], over a period of 3 years reported in 2005, a rate of 13.48%, higher than that of our series of 12 years. These rates are variously appreciated in Africa according to research methodologies. It accounted for 11.35% of gynecological cancers at Laquintinie Hospital in Douala (Cameroon) in 2015 [7], 14, 78% of gynecological and breast cancers at the Grand-Yoff hospital in Dakar, Senegal in 2012 [8]. and 8.83% of all cancers in Niger in 1992-2009 [9],

Age at diagnosis 45 years and older is consistent with data from the African literature [3, 4.7], with a mean of 49.5 years, 42.4 +/- 13.28 years and 48, respectively. 3 years, and a peak between 45 and 54 years in our study, Morocco [3] and Côte d'Ivoire [10]. The exposure of women aged 65 and over, postmenopausal (56.6%) in Morocco [3], is due to advanced aging linked to the accumulation of signs of cancer throughout life, to the loss of the effectiveness of repair mechanisms, poor nutrition and sedentary lifestyles [1]. Pauciparity as a risk factor is not found in Morocco where multiparas accounted for 51% [3]. The protective role of

Multiparity (43.33%), described by Rein B *et al*. in 2011 [11] was not revealed, by the low sampling, of our study and that of Zacharie Sando *et al*. in Yaoundé (Cameroon) [12].

Pelvic pain indicative of ovarian cancer was reported in the majority of other African studies [3, 7, 10], associated with urinary disorders and increased abdominal volume or sensation of mass, 37% in Casablanca [3]. These signs were in favor of a progression towards a locally advanced stage of the disease.

Ultrasound scanning is critical in the diagnosis approach; it avoids unnecessary intervention for uncomplicated functional pathology and indicates the likelihood of benignity and malignancy [13]. The CA125 marker was assayed 68% of the time. All ovarian cancer patients do not have abnormal CA 125 levels. The ACE markers and the CA19.9 recommended to exclude a germ tumor [3]. According to the data of the literature, the diagnosis was late in the FIGO II and III stages at 96.15% in our series and at ¾ that of Yaoundé [14], or III and IV [3, 8, 10], in 55 % of cases [3] and 75%, CNGOF [15].

According to the histological type, the ovarian epithelial tumor represented 61.54%, including 36.54% serous cyst adenocarcinoma of our series, in agreement with the majority of studies [3, 6, 7, 16, 17, 18]. For Brun J-L *et al*. [19] 2012, it represents 85% of malignant tumors of the ovary of the adult. The Krükenberg tumor, an ovarian metastasis, representing a rate of 5.77%, in line with that of 5-10% of the literature [13], must search for the original cancer, most often digestive at 70%. Berthé A *et al*, reported in 2015 cases of febrile ascites in women [20]. Traditional surgery is the essential time for the treatment of ovarian tumors, which allows for more or less complete tumor resection, evaluation of intra- and peritoneal extension, and staging if the tumor is malignant [21]. The total non-conservative hysterectomy was performed at 73.08% and the lymphadenectomy enlarged colpohysterectomy (CHEL) at 11.54% of the cases. Conservative surgery accounted for 7.62% after intraoperative staging. Complementary treatment is essentially based on chemotherapy [22], carried out at 19.23% of our series. Second-look surgery and radiotherapy were performed at 7.62% and 1.92%, respectively.

The average duration of hospitalization was 7.5 days with extremes of 0-45 days. It is sometimes prolonged by the occurrence of complications, the most frequent of which were parietal in 38.46% of cases. Clinical surveillance revealed 6 cases of recurrence (11.54%), including 4 cases of second-look surgery. The high death rate of 21.15% is thought to be related to the advanced stage of the disease with a deterioration of the general condition in 30, 77% of our series. If the diagnosis is made at the first stage of epithelial ovarian cancer, there is a 90% chance of survival at five years compared with 22% if diagnosed at stage 3 or 4 [23]. Ovarian cancer is associated with heavy mortality and the all-round survival rate is 73.5% at 1 year and 37% at 5 years [24].

Regarding the diagnosis correlation, between ultrasound and histology, she had a VPN of 89.13%, a sensitivity of 78.84% and a specificity of 98, 66% and a Positive Predictive Value (PPV) of 71, 05%, a sensitivity of 79% and a specificity of 90.43% between the values of CA 125 greater than 35 IU / ml and the histological result. The correlation between macroscopic and histology with a VPP of malignancy of 89.13%, a sensitivity of 78.84% and a VPN of 97.11% for a specificity of 98.66%, during the study period.

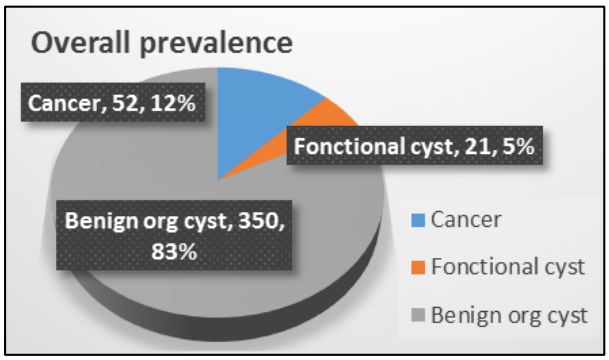

Fig 1: Over all Prevalence

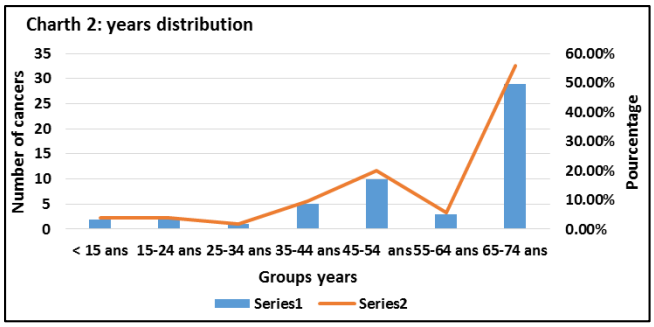

Fig 2: years distribution

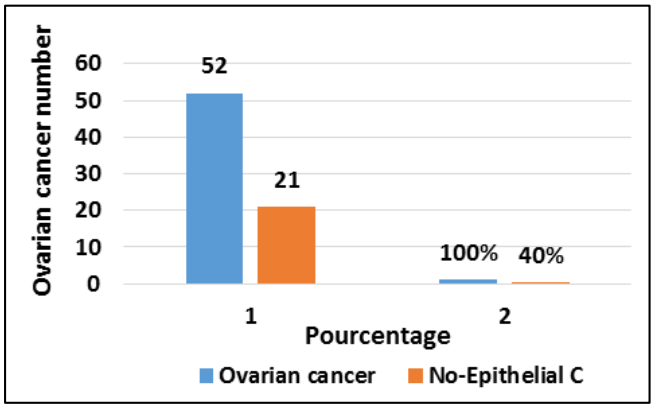

Fig 3: Ovarian cancer number

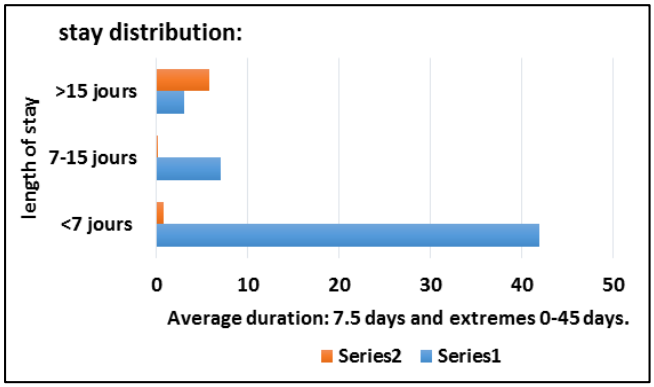

Fig 4: Stay distribution

Table 1: Distribution according to the circumstances of discovery

Circumstances of discovery	Number (=52)	Pourcentage (%)
Pelvic pain	52	100
Abdominal and Pelvic mass	30	57,69
Urinary disorders	52	100
Digestive disorders	46	88,46
Deteriration of the General Condition	16	30,77

Table 2: Distribution of ovarian cancers by size

Cancer	Number	%
< 50 mm	7	13,46
50-100 mm	18	34,62
> 100 mm	34	65,38
Missing	3	5,77
Total	52	100

Table 3: Distribution according to the performed gestures

Performed Gestures	Cancer (52)	
	Number	(%)
Ovariectomy	2	03,85
Adnexectomy unilateral	3	05,77
Total Hysterectomy + Unilateral Adnexectomy	3	05,77
Total Hysterectomy + Bilateral Adnexectomy	38	73,07
Colpohysterectomy Expand to lymphadenectomy	6	11,54

Table 4: Histo logical Distribution according to the echostructure

Histology Echostructure	Cancer	Pourcentage
1. Echogenicity and histological nature		
Hypo-echogen	12	23,08
Echogen	14	26,92
Hyper echogen	16	30,77
Mixed	10	19,23
2. Lodge		
Uniloculaire Fluid + Finely echogenic	11	21,15
Multilocular Fluid	20	38,46
3. Wall		
Thin	14	26,92
Thick	38	73,08
4. Vegetation		
Present	33	63,46
Missing	19	36,54

Table 5: Breakdown by stage

Stage	Number	Pourcentage
I	02	03,85
II	12	23,07
III	38	73,08%),
IV	-	-

Table 5: Distribution according to the color of the intra-tumoral Fluid

Histological Groups Color	Cancer	%
Chocolate	8	15,38
Citrine	7	13,46
Rock water	7	13,46
Oily	5	09,62
Bloody	19	36,54
Cloudy Fluid	3	05,77
Missing	3	05,77
Total	52	100

Table 6: Distribution according of the histological type

Cancer	Number (52)	Pourcentage
Epithelials Tumors	31	60,00
Serous Cystadenocarcinoma	19	36,54
Mucinous Cystadenocarcinoma	06	11,54
Endometrioid Cystadenocarcinoma	05	09,62
Tumeur à cellules claires	1	01,92
Germinals Tumors	18	34,61
Teratocarcinoma	13	25,00
Endocrine cells Tumors	01	01,92
Malignant ovarii cancer	04	07,62
Krükenberg Tumors	03	05,77

Table 7: Distribution according to postoperative complications

Complications	Number	Pourcentage
Suppuration	8	15,38
Digestive Complication	2	03,85
Vascular and lymphatic	3	05,77
Parietal Induration	8	15,38
Parietal hematoma	4	07,62
Recurrence	6	11,54
Death	11	21,15

Table 8: Distribution according to Complementary Therapies and Stage

Stage	Complementary Therapies					
	Chimio therapy		Radio therapy		Second look	
	Number (16)	Pourcentage	Number	Pourcentage	Number	Pourcentage
I	2	3,85	-	-	-	-
II	4	7,62	-		-	-
III	10	19,2	1	1,92	1	1,92
IV	-	-	--	-	-	-
Total	16	30,77	1	1,92	1	1,92

Table 9: Characteristic echographic and Correlation

Echography	Pathological Anatomy	
	BOC (n= 278)	Cancer (n= 52)
Fonctionals Cysts (n=23)	21	2
Benign organic Cysts (BOC: n= 261)	252	9
Cancer (n= 46)	5	41
Malignancy: PPV=89,13%	Malignancy: NPV=97,11%	
Sensibility = 78,84%	Specialty = 98,66%	

Table 10: Histological Nature of ovarian Tumors and serum level of CA 125 Correlation

histological Nature CA 125 Ul/ml	Total	
	Number	%
< 35	07	13,46
> 35	27	51,92
Not done	18	34,62
Malignancy: VVP=89,13%	Malignancy: VPN=97,11%	
Sensibility = 78,84%	Specialty = 98,66%	

Table 11: Macroscopic aspects and histological nature Concordence

Histological Nature	Macroscopic aspects		Concordence Macroscopy-histology
	BOC	cancer	(%)
Cancer (52)	7	45	86,69
Malignancy: PPV=89,13%			Malignancy: NPV=97,11%
Sensibility = 78,84%			Specialty = 98,66%

6. Conclusion

Ovarian cancer remains a common pathology in our limited resource structure, revealed by pelvic pain associated with urinary disorders, at an advanced stage, in elderly and pauciparous women with a good diagnostic correlation, for a radical hysterectomy. Another study from November 1st, 2007 to October 25, 2015, would assess the level achieved in improving the quality of overall care and survival of patients with ovarian cancer.

7. References

1. OMS. Cancer de l'ovaire.12/09/2019.www.who.int
2. Gentry-Maharaj A, Menon U. Screening for ovarian cancer in the general population.
3. Best Pract, Res Clini Obstet and Gynecol. 2012; 8:1-14.
4. Benhesson M, Boumba LMA, Benchkrroua M, Bouhya S, Enanji MM. Cancer épithélial au Maroc: Analyse épidémiologique sur une série de 182 cas au CHU Ibn Rochd de Casablanca (Maroc). Int. J. of Innovation and scientific Researsh ER-JO. 20015:195-162.
5. Lokossou A, Denakpo J, Bagnan-Tonato J, Perrinx RX. Les kystes de l'ovaire. Journal de la SAGO. 2007; (8):40-47.
6. Sy T, Diallo Y, Touré A, Diallo FB, Bah OA, Kéita N, *et al*. Diagnostic et prise en charge chirurgicale des tumeurs ovariennes à la clinique de gynécologie obstétrique Ignace Deen de Conakry. Le Bénin médical. 2007; 35:34-37.
7. Akpadza K, Baeta S, Napo-Koura G, Kolani K. Le cancer de l'ovaire au Togo. Méd. Afr Noire. 2005; 52(5):302-306.
8. Jean Paul, Ndamba Engbang, Valère Mve Koh. Amadou Fewou. Aspects histo-épidémiologiques des cancers génitaux de la femme dans le Littoral, Cameroun. The Pan African Médical Journal. Pan Afr Med J.2015, 21:116.
9. Diop PS, Ka IN, Diaye N, Fall B. Cancers gynécologique et mammaire à l'Hôpital général du Grand-Yoff de Dakar: Analyse et implantation des aspects épidémiologique à propos de 169 cas. Journal Africain du cancer, Aout. 2012; 4(3):176-179.
10. Garba SM, Quyou A. Epidémiologie du cancer au Niger, 1992-2009. Bulletin du cancer, février 2013; 100(2):127-133.
11. N'Dah KJ, Doukouré B, Troh E, Anam NA, Koffi KE, Kouame AD, *et al*. Epidemiocal and histological aspects of Women Genital Cancer in Côte d'Ivoire. Open Journal of Obstetrics and Gynaecology. 2014; 4(9):516-523.
12. Rein BJ, Gupta S, Dada R, Safi J, Michener C, Agarwal A. Potential markers for detection and monitoring of ovarian cancer. J Oncol, 2011. 475983. Doi: 10.1155 /2011 / 475983.
13. Sando Z, Fouoguet TJ, Fouelifack FY, Fouedjio JH, M boudou ET, Essame JLO *et al*. Profil des cancers gynécologiques et mammaires à Yaoundé- Cameroun. Pan Afr Med J. 2014; 17:28.
14. Dem A, Traoré B, Dieng MM, Gaye Fall MC, Kassé AA, Touré P, *et al*. Cancers gynécologiques et mammaires à l'Institut Marie Curie de Dakar. Oncologie clinique en Afrique. 2006; 02:17-21.
15. CNGOF. Diagnostiquer une tumeur de l'ovaire. www.cngof.net
16. Sando Z, Mboudou E, Fouoguet TJ. Clinical and Pathological Profile of Ovarian Cancer in Yaoundé (Cameroon) Wink in Mothers and Child Heath. 2010; 7(1):1183-8.
17. Ugwu EO, Iferikigwe ES, Okeke TC, Ugwu AOOkezie OA, Agu PU. Pattern of gyneacological cancers in University of Nigeria Teaching Hospital, Enugu, south eastern Nigeria. Niger J Med. 2011; 20(2):266-9.
18. Nayama M, Nouhou H, Souna-Madougou K, Idi N, Garba M, Tahirou A, *et al*. Cancers gynécologiques et mammaires: Aspects épidémiologiques et histologiques dans le service d'anatomie et cytologie pathologique de la faculté des sciences et de la santé de Niamey Niger. Mali medical. 2006; 21(3):43-49.
19. Sankara nayrayanan R, Ferlay J. Worldwide burden of Disease of gynaecological cancer: the Oncologist. 2006; 2(5):324-329.
20. Brun JL, Boubli B, Sasco A-J. Epidémiologie des tumeurs de l'ovaire. EMC: 630 A. 2012; 10:2-3 Doi: 10.1016/S0246-1064(12)54702-X).
21. Berthé A, Diop MM, adokky M, Bentefouet L, Ba PA, Ka MM, *et al*. Ascite fébrile chez la femme. The Pan African Medical Journal. 2015; 21:269.
22. Morice P, Uzan C, Gouy S. Chirurgie des tumeurs épithéliales malignes de l'ovaire. Encycl Med Chir (Elsevier SAS, Paris). Techniques chirurgicales- Gynécologie. 2009; 16:41-555.
23. RPC-SOR. pour la prise en charge des patientes des atteintes de tumeurs épithéliales malignes de l'ovaire « traitement médical de première ligne »-Avril 2008: Document intégral FNCLLL, 2008.
24. Matthew R, Russell, Ciaren Graham, Robert LJ. Graham correspondent. Diagnostic epithelial ovarian cancer using combined protein biomarker panel. British journal of cancer. 2019; 121:483-489.
25. Sasco A J. Epidémiologie des tumeurs de l'ovaire. Encycl Med Chir Editions Scientifiques et Médicales. Elsevier SAS, Paris, Gynécologie. 2001; 3:630-10.