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Female Genital Tract Malignancy, in Gadarif Advanced Medical Diagnostic Centre (GAMDC) Gadarif, Eastern Sudan, From 2017 to 2018

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ABSTRACT

Female genital tract malignant are common tumors that affect mainly the young female population, it is still the leading cause of cancer morbidity and mortality. The data concerning the gynecological malignancies are scarce in Sudan, so the aim of the current study was to analyze the trend of female genital tract malignancy and compare it with the national regional and international data. A retrospective descriptive study in the period from 1st January 2017 to 31st December 2018. Information was retrieved from the record kept as computer data. The main source of cases was Gadarif maternity teaching hospital. Among the 52 patients, cervical cancer was the common cancer 22(71%), followed by endometrial cancer 16 (30.8%) and ovarian cancer 6(11.5%). Squamous cervical cancer was the predominant subtype 16(72.7%) while endometrioid carcinoma was the commonest endometrial carcinoma 19(56.3%). The majority of patients were postmenopausal above than fifty years of age, however, the young ladies were not immune. Of the total 52 malignant cases, 22(42.3%) lived in urban area while 30(57.7%) lived in rural area. The ethnicity was determined, it was found that pure Africans and mixed Arab patients were 26 (50%), had an equal chance. The study concluded that cervical cancer was the common cancer (71%), followed by endometrial cancer and the ovarian cancer. The majority of patients were postmenopausal, above fifty years of age. Unfortunately, dominating cancer was cervical carcinoma which is a preventable one. It is high time to initiate cervical screening and vaccination program. Other studies should identify the modifiable risk factors for cervical cancer since it is a preventable disease.

Keywords: Female genital tract malignancy, Cervical cancer, Menopausal, Gadarif State, Eastern Sudan
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INTRODUCTION

Malignant tumors of the female genital tract represent a major public health problem in most of the developing countries (Der et al., 2015) and associated with mortality and morbidity worldwide (WHO, 2008; Farley, 2010). More than 75,000 new cases of female genital tract malignancies diagnosed annually (John et al., 2006). The most common female malignancy is breast carcinoma followed by female genital tract cancers which constitute 14% of cancer in women (KHursheed, 2010). There are various types of cancer that infect the female genital tract system, these include cancer of the cervix, ovaries, vagina, vulva, endometrial and choriocarcinomas (American Cancer Society, 2011). Cervical, endometrial, and ovarian cancers are common types whereas vulvar, vaginal, fallopian tube cancers, and choriocarcinomas are very rare (Wiederpass and Labrèche, 2012). Cervical cancer was the commonest female genital tract (FGT) malignancy cause of morbidity and mortality worldwide (Jemal et al., 2011). Annually over 500,000 new cases of cervical cancer are diagnosed worldwide (Jha et al., 2015; Daniyial et al., 2015), It is the second most common cause of cancer-related deaths among women worldwide and 50% mortality rates seen in Asian ladies, late-stage at

diagnoses is one of their lowered survival rates (Jha et al., 2015; Danyial et al., 2015). Endometrial carcinoma was showing high incidence in developed countries. Ovarian cancer was higher in European and North American population than in Asian and African communities (Wiederpass and Labrèche, 2012), the endometrial carcinoma is increasing in the Western countries where no single screening tests available apart of the transvaginal ultrasound to detect the thickened endomatrium (KHursheed et al., 2010; Asim, 2004). Malignancy in postmenopausal women varies from country to other (Ergete, 2001). The rate is higher in developing countries than in developed ones, because of lack of awareness among the public and the prevalence of Human Immunodeficiency virus (HIV) and human papiloma virus (HPV) infections (Ergete, 2001). In Pakistan, 265 post-menopausal ladies admitted to hospital most of them had a high frequency of cervical cancer 41(60.3), ovarian cancer 11(16.2) and endometrial carcinoma 8 (11.8%) and the vulvar carcinoma 5 (7.3%) ect (Khursheed et al., 2010).

In African peoples, carcinoma of the cervix is common and reported for a long period of time, therefore African countries should establish and sustain screening and colonoscopy centers (Mohammad, 2006; Parkin, 1992; Armon, 1978). The percentage of cervical cancer can be reduced by education of the importance of it and service made available and affordable. In Nigeria cervical cancer the most common FGT cancer with moderately differentiated squamous carcinoma as a predominant subtype (Yao, 2015; Nnadi, 2014). Another study done in Nigeria by Mohammd et al. (2006) found that cervical carcinoma is a leading cause of morbidity and mortality 77% followed by carcinoma of the corpus uteri 10.1% of the cases and ovarian carcinoma 8.4% among 513 patients. The commonest type of cervical carcinoma was squamous cell carcinoma 89.5%, while the commonest corpus uteri were choriocarcinoma 57.7%. The cervical and endometrial carcinomas were common in the fifth decade of life, while the ovarian carcinoma was common in the fourth decade of life. Researches should be directed towards etiology, preventive strategies and optimum treatment. However, it is important to establish the pattern of cancer distribution of FGT (Mohammad, 2006; Nwosu, 2004). Two studies carried out in Ghana revealed that cervical cancer was the commonest FGT malignancy and the major cause of cancer-related mortality and morbidity although it preventable (Der, 2015; Denyal et al., 2014). Of a total of 1427 FGT malignancies, 1011(70.8%) were cervical carcinoma. The mean age of patients with cervical cancer was 57.8(SD=13.8) years youngest patient diagnosed was 22years. The commonest subtype was squamous cells carcinoma 90.1% followed by adenocarcionoma 5.8%. High prevalence of cervical cancer due to lack of screening program and vaccination in African countries. It was worsening by the high prevalence of HIV and HPV infections (Denyal et al., 2014). Common presentation of cervical carcinoma was vaginal bleeding, contact bleeding, vaginal discharge, vaginal mass pain during sexual intercourse, these symptoms and sign suggestive of advanced stage of the diseases (Hamad, 2006). Cervical cancer is the second most common cause of death in Sudanese women after breast cancer and accounts for about 17% of all cancers (Hamad, 2006). Ovarian cancer called as a silent killer because symptoms appear at the late stages of the disease (Jemal et al., 2006), it is three-time more lethal than it. High mortality rates due to lack of screening strategies to detected early stages disease (Abuidris et al., 2013; 2016). In Sudan according to the National Registry of cancer for Khartoum state, 2009 to 2010 reported that ovarian cancer was the fourth common in females with an estimated incidence rate of 188 per 100,000 populations (Shahrazad et al., 2016). The data concerning the gynecological malignancies are scarce in Sudan, so the current study was done in Gadarif State to analyze the trend of female genital tract malignancy and compare it with the national regional and international data.

MATERIALS AND METHODS

A retrospective descriptive study conducted in Gadarif Advanced Medical Diagnostic Centre (GAMDC) Gadarif, eastern Sudan in the period between 1st January 2017 to 31st December 2018. The GAMDC established in 2008 and it is the only centre in Gadarif state of eastern Sudan, it provides laboratory, radiological and endoscopic services. During this period GADMC received 3100 histopathological specimens and biopsies, the histopathological reports were reviewed. 52/3100 cases have been diagnosed as malignant by qualified histopathologists. Data collection form including variables such as, age, residency, menopausal status (premenopausal and postmenopausal), ethnicity which categorized into 2 groups pure African include several tribes (such as noba) and Sudanese Arab mixed with African include several tribes such as jaaleen). Inclusion criteria were all female who diagnosed with genital tract lesions on histopathological examination. The exclusion criteria: Women with diagnosed lesions other than the genital tract were excluded. The data has been processed and introduced in soft Excel workbook 2010 and exported to SPSS version 20.

RESULTS AND DISCUSSION

Of the total 3100 cases diagnosed at GADMC 52 (1.7%) of them represented female genital tract lesions. The age of the patient has divided into 2 groups, the patient < 50 years considered as premenopausal groups and patients ≥ 50 considered as postmenopausal groups. They represented 18(34.6%) and 34(65.4%), respectively (Figure 1). 22 (42.3%) malignant cases lived in an urban area while 30(58%) lived in the rural area (Figure 2). The ethnicity was determined it was found that 26(50%) of the

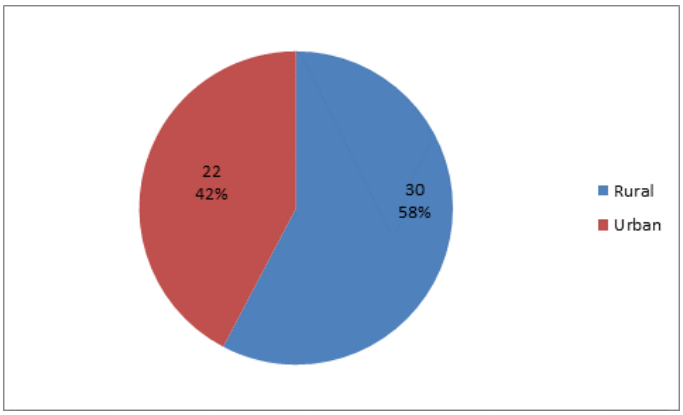

Figure 1. Show menopausal status in the patients.

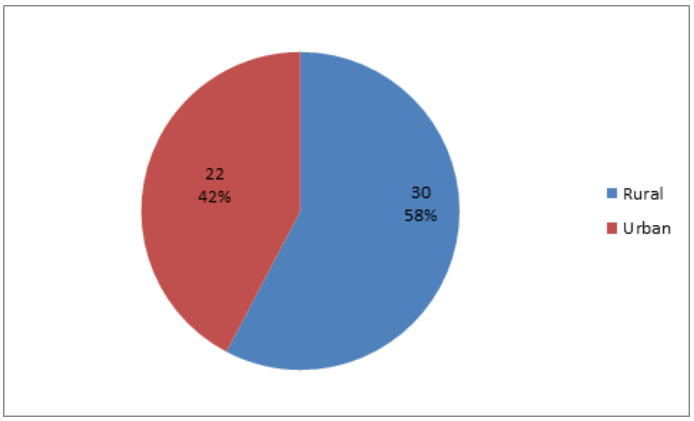

Figure 2. Show residence of patients.

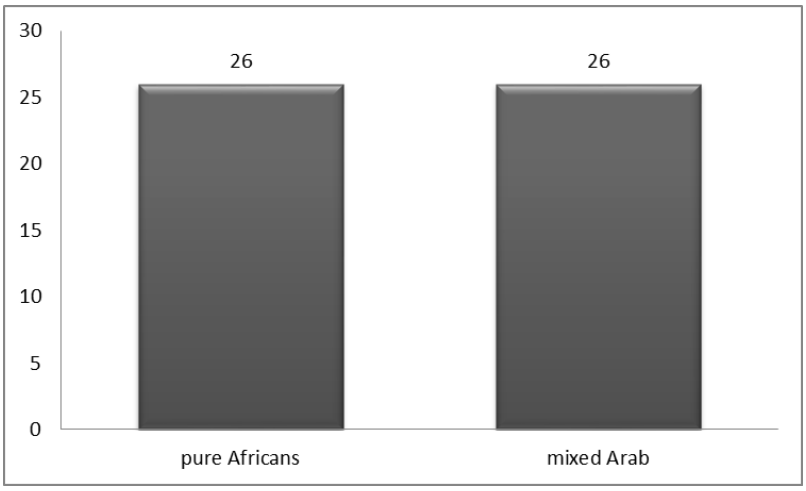

Figure 3. Show ethnicity of the patients.

patients were pure Africans, while the same percents were Sudanese mixed Arab and African patients 26 (50%) (Figure 3). The most common type of malignancies was cervical cancer found in 22(42.3%) cases followed by endometrial malignancies 16 (30.8%) cases and ovarian cancer 6(11.5%) cases. 8(15.4%) cases precancerous cervical lesion was seen (Figure 4). Of 22 malignant cervical cases, the squamous

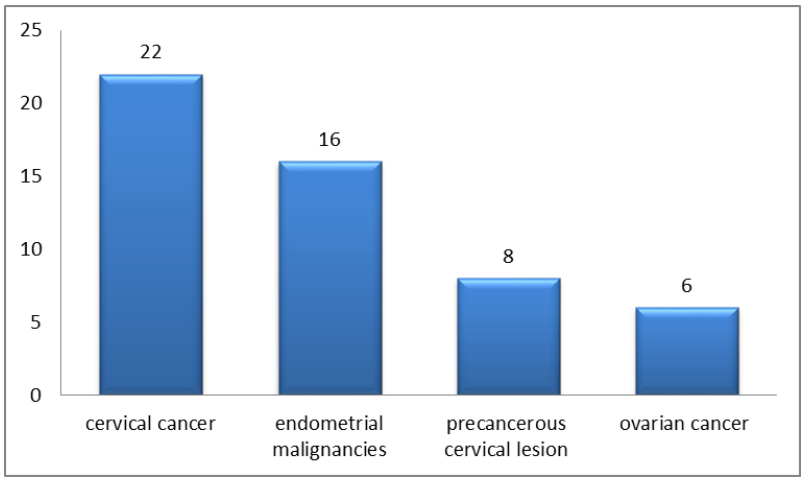

Figure 4. Type of female genital tracts lesions.

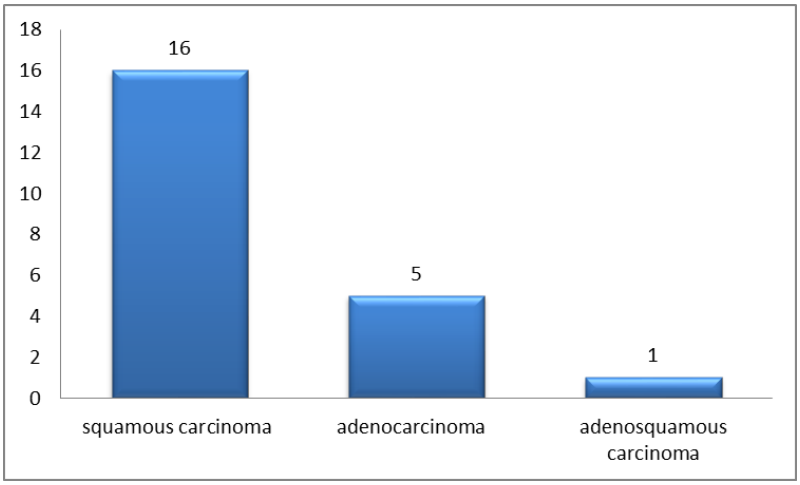

Figure 5. Histopathological types of cervical malignancy.

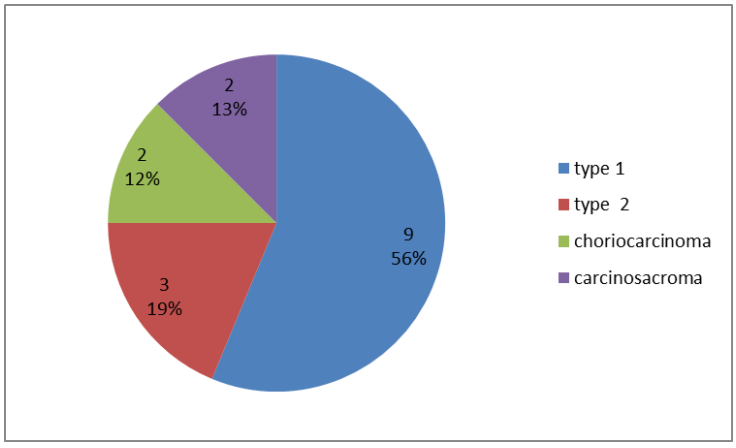

Figure 6. Histopathological types of endometrial carcinoma.

carcinoma was 16 (72.7%), while the adenocarcinoma was 5(22.7%) and the single case was adenosquamous carcinoma 1(4.6%) (Figure 5). The endometrial carcinoma type1 9(56.3%) and type2 3(18.7%) while the choriocarcinoma 2(12.5%) was, and carcinosacroma 2 (12.5%) (Figure 6). Genital tract malignancies constitute

a major public health problem in most developing countries (Der et al., 2015). Our findings revealed that the majority of the patient (65%) were relatively old ladies in postmenopausal age this result was consistent with the finding of the previous study carried by Der et al. (2015) who reported that FGTMs were common in relatively older Ghanaian women, 66.4% represented postmenopausal ladies.

In this study 58% of patients were from rural area, Ibrahim et al. (2011) showed that; cervical cancer is associated with older age, African ethnicity and rural residence. Half of our patients were pure African this finding was consistent with the fact that FGT malignancy in general and cervical carcinoma in a particular was common among African, not because of genetic predisposition, but because the African countries were not aware by screening and vaccination program. Cervical carcinoma was common in African, while endometrial and ovarian carcinomas were relatively higher in European and North American population because no convincing screening program to guard against endometrial and ovarian carcinoma (Wiederpass, 2012) (Jha, 2015; Danyial, 2015). The current study found that the commonest female genital tract malignancies were uterine cervix malignancy consistent with the results of Ghanaian and Nigerian women (Nkyekyer, 2000; Nandi, 2014). Also consistent with study done in Pakistan and Nepal, about 80% of cervical cancer occurred annually in developing countries where the screening of five years applied only in 5% of women (KHursheed, 2010; Ergete et al., 2001), the squamous carcinoma were the commonest subtype followed by adenocarcinoma this is in line with the Korle Bu study done in Ghana (Der et al., 2015). In this study, the predominant endometrial carcinoma was endometrioid adenocarcinoma type1 9(56.3%) followed and papillary carcinoma type 2. these findings are consistent with Korle Bu study done in Ghana (Der et al., 2015). Nepal, Pakistan, however, was inconsistent with the study done in Nigeria which revealed the commonest cancer was choriocarcinoma (Mohammad, 2006).

CONCLUSION

Cervical cancer was the common cancer (71%), followed by endometrial cancer and ovarian cancer. Majority of patients were postmenopausal, above than fifty years of age, however, the young ladies were not immune. Unfortunately, dominating cancer was cervical carcinoma which is a preventable one.

RECOMMENDATIONS

Health education about the symptoms of FGT malignancy and in particular for cervical cancer to enable the ladies to seek management in the early stages of the disease. It is high time to initiate cervical screening and vaccination program. The program should be led by gynecologists and pathologists as focus persons. Other studies should identify the modifiable risk factors for cervical cancer since it is a preventable disease.

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