Editorial

Ovarian cancer: An undertreated and understudied entity in sub Saharan Africa

Ovarian cancer (OC) is currently the 7th most common malignancy globally and the most lethal gynecological cancer.[1] It has been estimated that, in the United States, one woman in 70 will develop ovarian cancer, and one woman in 100 will die of the disease.[2] Ovarian cancer rates vary between different countries and appear to be related to socioeconomic status and reproductive factors. It is the second most common gynaecological cancer in sub Saharan Africa. Epithelial ovarian cancer (EOC) constitutes about 85-90% of all ovarian malignancies.[1] In both developed and developing nations, the case fatality of ovarian cancer is very high for some reasons. The disease is associated with late presentation as there are no specific early symptoms to warn the patients and caregivers, there are no significant screening tests to predict patients who might develop the cancer and no matter how good the immediate outcomes following the current standard modalities of treatment which includes optimum debulking surgery and chemotherapy, recurrence is the rule rather than the exception in most cases.

Epithelial ovarian cancer arises through somatic and germ-line mutations. The sporadic somatic mutations account for majority of cases and this largely arise from the effects of advancing age and environmental factors and cannot be transferred to the offspring. Germ line mutation accounts for up to 10% of all ovarian cancers and up to 25% of EOC. Germ line mutation is inherited in an autosomal dominant fashion (maternal and paternal) and many members of the family are affected across several generations.[3] True hereditary ovarian cancer actually arises from BRCA1 and BRCA2 germ line mutations. A family history of ovarian and breast cancer particularly before the age of 50 years in first degree relations is a strong risk factor for BRCA1 and BRCA2 mutations. Epithelial ovarian cancer is also a component of Lynch syndrome II (Hereditary nonpolyposis colorectal cancer syndrome-HNPCC). In addition to a predisposition to develop colorectal and endometrial cancer, women with this syndrome have a 10-13% lifetime risk for developing ovarian cancer.[3,4]

Given the high relapse rate and poor prognosis of high grade and advanced EOC, interest is increasing in new methods of treating the disease to improve the overall survival. Some of the evolving methods include targeted therapy using humanized monoclonal antibodies, immunotherapy, T-cell engineering etc.,[5,6] However, to apply these new treatment modalities, individual EOC has to be characterized in terms of its genetics and epigenetics. Several panels for such studies have been developed and currently been deployed for the investigation and management of patients.

Managing OC like all other malignancies is particularly challenging in sub Saharan Africa. Apart from the fact that the patients present in advanced stages, the majority of them cannot afford the cost of care since health financing is still largely out of pocket in most parts of the region. The cost of chemotherapy drugs is exorbitant and beyond the reach of most patients such that majority never complete their course of chemotherapy. Sometimes also because of the menace of fake and adulterated drugs pervading the region, those who receive chemotherapy show little or no improvement. The dearth of appropriately trained gynaecological oncologists in the region is another critical challenge.[7] Altogether, these make the care of patients with OC at best suboptimum in most parts of sub-Saharan Africa leading to more case fatality.

A lot of studies have been done in the white population to understand the population-based risk factors for ovarian cancer, the genetics and epigenetics of individual ovarian cancer is also been vigorously studied with a view to understanding the real biology of this cancer so as to be able to deploy the emerging new modalities of targeted therapy to address the high case fatality of the disease. However, only few studies have been done on ovarian cancer is sub-Saharan Africa, there is therefore the need for a wake up call on our gynecologists to evolve studies in this area so that we can also understand the biology of ovarian cancer in our population which might not necessarily be the same as in the Caucasians. There is also the need to urgently commence specialized training in gynaecological oncology to promote adequate and appropriate management of cases. In the meantime, gynecologists and other practitioners, should be conversant with the risk of malignancy index (RMI) scoring so that women assessed for adnexal mass can be referred in a timely and appropriate manner to centres with well-established gynaeoncology units. More measures should be put in

place to curb the menace of substandard and fake drugs at national and regional levels. And finally, alternative health financing modalities in the form of national or community health insurance schemes are highly desirable to assuage out of pocket financing and improve overall access to care for cancer patients in our sub-region.

Adepiti Clement Akinfolarin

Gynaeoncology Unit, Department of Obstetrics, Gynaecology and Perinatology, Obafemi Awolowo University Teaching Hospitals' Complex, Ile-Ife, Nigeria

Address for correspondence: Dr. Adepiti Clement Akinfolarin, Gynaeoncology Unit, Department of Obstetrics, Gynaecology and Perinatology, Obafemi Awolowo University Teaching Hospitals' Complex, Ile-Ife, Nigeria.
E-mail: adepitifola@gmail.com

References

1. Siegel RL, Miller KD, Jemal A. Cancer statistics, 2017. CA Cancer J Clin 2017;67:7-30.
2. Reid MB, Permuth JB, Sellers AT. Epidemiology of ovarian cancer a review. Cancer Bio Med 2017;14: 9-32.
3. Shulman PL, Dunger SJ. Cancer Genetics: Risk and mechanism of cancer in women with inherited susceptibility to epithelial ovarian cancer. Cancer Treat Res 2010;156:69-85.
4. Antoniou A, Pharoah PD, Narod S, Risch HA, Eyfjord JE, Hopper JL, *et al*. Average risks of breast and ovarian cancer associated with BRCA1 or BRCA2 mutations detected in case series unselected for family history: A combined analysis of 22 studies. Am J Hum Genet 2003;72:1117-30.
5. Marchetti C, Muzzi L, Romito A, Pacini PB. First-line treatment of women with advanced ovarian cancer: Focus on Bevacizumab. Onco Target Ther 2019;12:1095-103.
6. Kristeleit R, Shapiro GI, Burris HA, Oza AM, LoRusso P, Patel MR, *et al*. A phase I–II study of the oral poly (ADP-ribose) polymerase inhibitor rucaparib in patients with germline BRCA1/2-mutated ovarian carcinoma or other solid tumors. Clin Cancer Res 2017;23:4095-106.
7. Iyoke CA, Ugwu GO, Ezugwu EC, Ezegwu FO, Lawani OL, Onyebuchi OK. Challenges associated with the management of gynecological cancers in a tertiary hospital in South East Nigeria. Int J Women's Health 2014;6:123-30.

Access this article online

Website: www.tjogonline.com

DOI: 10.4103/TJOG.TJOG_28_20

Quick Response Code

How to cite this article: Akinfolarin AC. Ovarian cancer: An undertreated and understudied entity in sub Saharan Africa. Trop J Obstet Gynaecol 2020;37:1-2.

Received: 04-04-2020 **Accepted:** 04-05-2020
Published Online: 14-08-2020