

# Comparative Epidemiology of Breast Carcinoma in Swedish and Nigerian Women Under 30 Years of Age

Wilson IB Onuigbo\*

Department of Pathology, Medical Foundation and Clinic, Enugu, Nigeria

## Abstract

**Background:** The objective of this study was to compare histopathologic data dealing with both Swedish and Nigerian women who were under 30 years of age when breast carcinoma arose.

**Methods:** During 1958 through 1961, 75 cases of breast carcinoma in women aged less than 30 years were reported to the Swedish Cancer Registry and were reviewed histopathologically. For comparison, between 20th February, 1970, and 19th February, 2000, 122 surgical biopsies were collected from similarly affected women and examined by the author in a Reference Pathology Laboratory serving the Igbo ethnic group in Nigeria.

**Results:** The youngest patient was aged 18 years in both countries. The 25-29 age group preponderated in each series while pregnancy related cancer occurred respectively in between 7.3% and 9.3%. Adenoid cystic carcinoma occurred once in only the Nigerian cohort.

**Conclusion:** Concerning ethnology, the Swedes are reported to be "notably homogenous" while the Igbos of Nigeria constitutes a noted ethnic group. Therefore, since it has been postulated that ethnic differences are important variables in the study of breast cancer epidemiologically, this study contributes to the affirmation of this concept. In all probability, world-wide comparative epidemiologic investigations in this field will prove not only concrete but also contributory.

**Keywords:** Breast cancer; Young age; Sweden; Nigeria; Comparative study; Epidemiology

## Introduction

Wallgren and associates published on all the cases reported to the Swedish Cancer Registry in the 1985-1968 period as breast carcinomas in women under 30 years of age [1]. On retrospective analysis of the microscopic slides, it was expressly stated that "75 were accepted as carcinoma." Therefore, the purpose of this paper is to compare some of their results with those diagnosed personally as carcinomas on the strength of my long experience [2]. Moreover, imitating the Birmingham type of histopathology data pool over a period of 30 years, the data were specifically collected from the Ibos or Igbos, who constitute one of the major ethnic groups in Nigeria, West Africa. In this context, the ethnology of the Swedes is such that they are "notably homogenous" [3-5].

## Methods

During the period from 20th February, 1970, to 19th February, 2000, I was solely in charge of a Reference Pathology Laboratory located in Enugu, the former capital of the Eastern Region of Nigeria. Sixty-eight doctors working among the Igbos in 44 hospitals situated in 20 towns sent to me surgical specimens with the required adequate clinical records. Since I kept duplicate copies of their data and my findings, it was possible to compare them with the Swedish materials as regards age, pregnancy status, and histologic appearances, remembering that "carcinoma" simpliciter is unlikely to have changed as a diagnosis during these decades. Moreover, the major interest in Sweden was not on histologic classification but on survival rate itself, whereas the Nigerian patients were not followed up.

## Results

There were 122 patients aged up to 29 years Table 1. The youngest was aged 18 years in both series. Those aged from 25-29 years numbered 92, i.e., 75%, thereby preponderating as in Sweden's 87%. Sixteen Nigerian patients were pregnant or lactating, i.e., 12.3%, in contrast

with Sweden, whose figures stood at roughly 20%. Considering the pathological diagnosis, the general run of ductal, lobular, mucinous, comedo, medullary, undifferentiated, and multiform carcinomas could be identified. What stood out was the single case of adenocystic carcinoma which appeared in only the Nigerian cohort. Figure 1

## Discussion

Detected patterns portrayed in the present study are truly representative of the local carcinomas. This is because of the representative nature of my materials, seeing that 68 doctors working in 44 hospitals situated in 20 towns submitted the accrued specimens. In fact, I have argued in a Doctorate Thesis based on Igboland that my histopathology data pool is so deep that what is fished from it is necessarily representative of the epidemiology of this ethnic group! [6]

Group in terms of epidemiology is often based on age characteristics.

Age (years)	Number of cases	
	Sweden	Nigeria
<20	1	2
20-24	9	28
25-29	65	92
Total	75	122

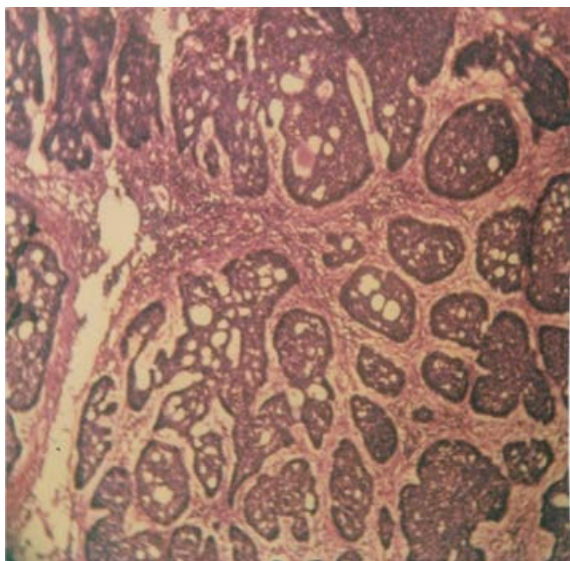
Table 1: Age distribution of patients under 30 years in Sweden and Nigeria.

\*Corresponding author: Onuigbo WIB; Department of Pathology, Medical Foundation and Clinic, 8 Nsukka Lane, Enugu-400001, Nigeria, Tel: 2348037208680; E-mail: [wilson.onuigbo@gmail.com](mailto:wilson.onuigbo@gmail.com)

Received October 20, 2015; Accepted October 22, 2015; Published October 28, 2015

Citation: Onuigbo WI (2015) Comparative Epidemiology of Breast Carcinoma in Swedish and Nigerian Women Under 30 Years of Age. J Women's Health Care 4: 279. doi:10.4172/2167-0420.1000279

Copyright: © 2015 Onuigbo WI. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.



**Figure 1:** Typical microscopic appearance of adenocystic carcinoma in an Ibo woman.

Unfortunately, this yardstick is often variable. Thus, “young women” were here presented as those aged below 30 years. In the recent available literature, this was also the cut-off age [7]. Elsewhere, the figures have varied so much that Gabriel and Domchek lamented as follows: “The definition of a ‘young woman’ in the field of breast oncology varies, with most referring to women under either age 35 or 40 years as ‘young’ [8].” To be specific, the data are “27-45 years,” [9] “under 36,” [10] “under 40,” [11,12] “aged 40 and younger,” [13] and “aged 41-47” [14]. Be that as it may, much as one would have wished for a gold standard, the message is that health education for self examination must start early.

Early such detection must be pursued worldwide. It was singularly canvassed as a global initiative especially in Limited-Resource Countries [15]. Indeed, as United States authors [16] put it, “Because most women initially consult their gynecologist about breast-related complaints, their role in the diagnostic process needs to be reemphasized.” Perhaps, the women groups have divergent degrees of rapport with their diagnosticians. To emphasize with the review of Anderson, [17] “Uncertainties persist about management and prognosis of mammary cancers that occur during and after pregnancy and during lactation.” In this context, as was summarized recently [18] using data without any age limits, “Breast Cancer during Pregnancy (BCP) is relatively rare and is associated with controversies about its biology and prognosis.” Accordingly, in all probability, world-wide epidemiology may contribute positively in resolving such controversies [19]. Incidentally, the single case of adenocystic carcinoma in the Nigerian series is reminiscent of the interesting appearance of this particular carcinoma in an albino in whom skin lesion coexisted with other forms of carcinoma [20].

## Conclusion

A persuasive premise is that the cancer category of yester years is still useful in the promotion of reliable researches on the worldwide epidemiology of breast cancer [21]. This assertion is made in spite of the fact that, nowadays, leading researchers [22,23] are churning out several molecular classifications! Accordingly, the present paper

provides some interesting highlights on the comparative epidemiology of breast carcinoma among Swedish and Nigerian women under 30 years of age, e.g., the youngest were both teenagers.

## References

1. Walgren A, Silfversward C, Hultborn A (1977) Carcinoma of the breast in women under 30 years of age. A clinical and histopathological study of all cases reported as carcinoma to the Swedish cancer registry, 1958-1988. *Cancer* 40: 916-923.
2. Onuigbo WIB (1963) Some pathological data on 2000 adenocarcinomas and squamous cell carcinomas of the lung. *Br J Cancer*, 17: 1-7.
3. Macartney JC, Rollason TP, Codling BW (1980) Use of a histopathology data pool for epidemiological analysis. *J Clin Pathol* 33: 351-355.
4. Basden GT, Niger Ibos (1966) “Youth to old age-girls & women, London: Frank Cass & Co Ltd, 14: 203-212.
5. New Age Encyclopedia (1981) Lexicon Publications, Inc 17: 413.
6. Onuigbo WIB (1980) Studies on the geographical pathology of the Igbos of Nigeria. MD Thesis, Glasgow University.
7. Barnadas A, Vasquez C (2010) Breast cancer in young women. Part I: Epidemiology, risk factors and diagnosis. *Breast Cancer Res Treat* 123: 1.
8. Gabriel CA, Domchek SM (2010) Breast cancer in young women. *Breast Cancer Res* 12:212.
9. Honore H (1979) Breast cancer in young women. *Br Med J* i: 1563.
10. Gajdos C, Tartter PI, Bleiwiess IJ, Bodian C, Brower ST (2000) Stage 0 to stage III breast cancer in young women. *J Am Coll Surg* 190: 523-529.
11. Fredholm H, Eaker S, Frisell J, Holmberg L, Fredriksson I, et al. (2009) Breast cancer in young women: Poor survival despite intensive treatment. *PLoS one* 4: e7695.
12. Winchester DP (1996) Breast cancer in young women. *Surg Clin North Am* 76: 279-287.
13. Bernstein L, Henderson BE, Hanisch R, Sullivan Haley J, Ross RK (1994) Physical exercise and reduced risk of breast cancer in young women. *J Natl Cancer Inst* 86: 1403-1408.
14. Amin A, Shriver CD, Henry LR (2008) Breast cancer screening compliance among young women in a free access health care system. *J Surg Oncol* 97:20-24.
15. Anderson BO, Shyan R, Eniu A (2006) Breast care in limited resource countries: an overview of the Breast Health Global Initiative 2005 guidelines. *Breast J* 12: S3-S15.
16. Nyirjesy I, Billingsley FS (1984) Detection of breast carcinoma in a gynecologic practice. *J Am Coll Obstet Gynecol* 64: 747-751.
17. Anderson JM (1979) Mammary cancers and pregnancy. *Br Med J* i: 1124-1127.
18. Azim Jr HA, Botteri E, Renne G (2012) The biological features and prognosis of breast cancer diagnosed during pregnancy: A case-control study. *Acta Oncol* 51: 653-661.
19. Middleton LP, Amin M, Gwyn K (2003) Breast carcinoma in pregnant women. Assessment of clinicopathologic and immunohistochemical features. *Cancer* 98: 1055-1060.
20. Onuigbo WIB, Nnabuko RE (2009) Three different carcinomas clustered in one facial focus in albino. *Nigerian J Surg Sci* 19: 38-40.
21. McMahon B, Morrison AS, Ackerman LV (1973) Histologic characteristics of breast cancer in Boston and Tokyo. *Int J Cancer* 11: 338-344.
22. Natrajan R, Mackay A, Lambros MB, Weigelt B, Wilkerson PM, et al. (2012) A whole-genome massively parallel sequencing analysis of BRCA 1 mutant oestrogen receptor negative and positive breast cancers. *J Pathol* 227: 29-41.
23. Ginestier C, Charafe Jauffret E, Bimbaum D (2012) What drives breast cancer heterogeneity: oncogenic events or cell of origin? *J Pathol* 221: 267-269.