

SIMULTANEOUS BILATERAL MALIGNANT BREAST NEOPLASMS IN NIGERIAN WOMEN

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This study reviews the clinicopathological features and survival of 18 Nigerian women with simultaneous bilateral breast cancer. Twelve (67%) of these patients had bilateral Burkitt's lymphoma of the breast. The average age of these patients was 22 years, and all of the women were pregnant or lactating at the time of initial clinical presentation. The remaining six patients (33%) had bilateral malignant epithelial neoplasms, with lobular carcinoma being present in four cases. The average age of patients with bilateral malignant epithelial tumors was 37 years. None of the 18 patients with simultaneous bilateral breast cancer survived for up to 2 years after diagnosis, indicating that bilateral synchronous breast cancer in Nigerian women is a rapidly progressive and aggressive disease. (J Natl Med Assoc. 1994;86:365-368.)

Key words • breast cancer • bilateral breast cancer
• Nigerian women • Burkitt's lymphoma

The first case of bilateral breast cancer was reported by Nisbet in 1800.^{1,2} The incidence of bilateral breast carcinoma ranges from 0.2% to 2% in various series.¹ In white patients, 24% of bilateral breast carcinomas occur simultaneously.³

A literature review revealed no other study of bilateral breast cancer in African women. Therefore, the present study was undertaken to review the clinico-

pathological features and survival of Nigerian women with bilateral breast cancer.

MATERIALS AND METHODS

A retrospective study was undertaken on the clinical and pathological findings in 104 selected patients with malignant breast neoplasms recorded in the Cancer Registry of the Department of Pathology, University College Hospital, Ibadan, Nigeria. Patients who had malignant breast neoplasms in both breasts at the time of initial clinical presentation were regarded as having simultaneous bilateral neoplasms. Patients who developed metachronous bilateral neoplasms after having had mastectomy for unilateral breast cancer were excluded from the study.

The prognostic factors studied with respect to these patients with bilateral simultaneous malignant breast neoplasms included age, clinical local signs of carcinoma in the breast, regional lymph node status, choice of treatment, and histological types of breast cancer. The tumors of the patients were histologically typed according to the 1973 Pathology Working Group Classification of the National Cancer Institute.⁴ The total duration of disease from the initial onset of symptoms until death or last clinical presentation was determined in each case.

RESULTS

Eighteen (17%) of the 104 patients studied presented with simultaneous bilateral malignant neoplasms of the breast. Their ages ranged from 17 to 47 years (mean: 30 years).

Twelve (67%) of the 18 patients had simultaneous bilateral primary Burkitt's lymphoma of the breast (Figure 1). The ages of these latter patients ranged from

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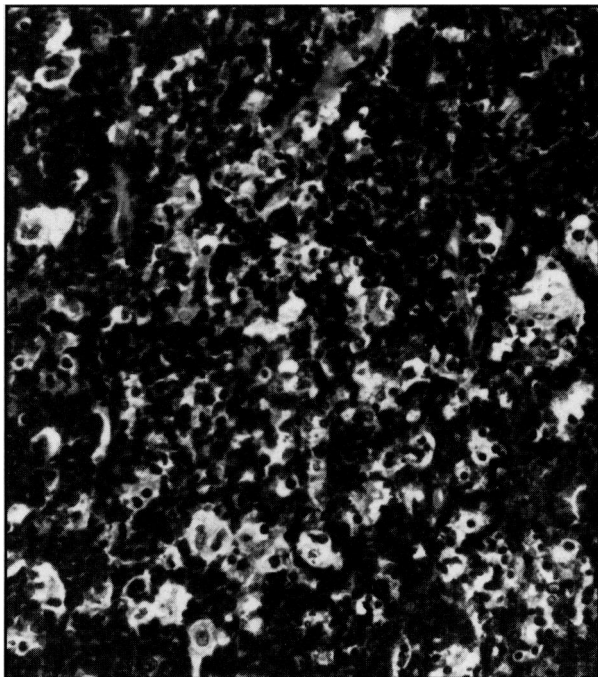


Figure 1. Characteristic starry sky appearance in Burkitt's lymphoma of the breast.

17 to 36 years (mean: 22 years). Eight (67%) of the 12 patients were under 30 years of age. The ages of the remaining four patients were 30, 35, 36, and 36 years, respectively. All of the patients with Burkitt's lymphoma were lactating when first seen by clinicians. They all presented with the striking characteristic syndrome of massive bilateral breast tumors. In one patient, the clinical evolution of the tumor was so rapid that within 3 months after delivery, satellite skin tumor nodules showing surface ulceration were already present in both breasts (Figure 2).

The remaining six (33%) patients presented with simultaneous bilateral epithelial cancers of the breast. Their ages ranged from 22 to 47 years (mean: 37 years). These latter patients were therefore on the average about 15 years older than the patients with simultaneous bilateral Burkitt's lymphoma.

One patient had bilateral inflammatory carcinoma of the breast. Her breasts were both red, hot, hard in consistency, and tender. Her cancer was diffuse, involving the whole breast on both sides.

Invasive lobular carcinoma was the most common histological type of epithelial neoplasm that gave rise to bilateral breast cancer (Figure 3). It accounted for 67% of the six cases who had simultaneous bilateral epithelial breast neoplasms. Remarkably, one of the

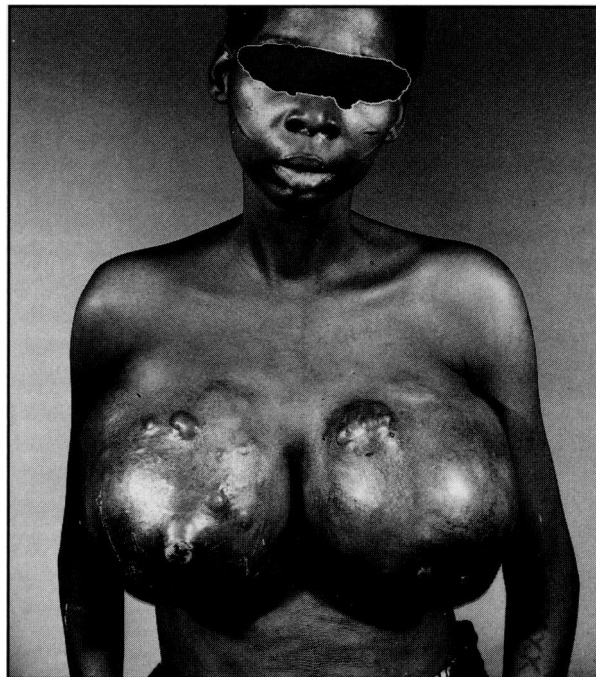


Figure 2. Massive bilateral breast tumors with satellite skin tumor nodules and surface ulceration in a patient with Burkitt's lymphoma.

patients presenting with bilateral epithelial cancer had auto-amputation of her left breast.

Treatment

Only one patient with primary bilateral Burkitt's lymphoma (shown in Figure 2) underwent bilateral mastectomy to debulk her primary tumors before chemotherapy. The remaining 17 patients had chemotherapy only, as there were no facilities for radiotherapy in the Teaching Hospital at the time of the study.

Survival

The Table indicates patients' length of survival. The average survival time was 7 months. Eleven (61%) of these 18 patients survived between 1 and 5 months, and only four (27%) survived from 12 to 15 months. The 12 patients who had primary Burkitt's lymphoma had an average survival time of 5.2 months.

It is significant to note that eight (67%) of the 12 patients who had Burkitt's lymphoma were under 20 years of age. Their average survival time was 4 months. During the course of the study, no patient older than 36 years of age presented with primary Burkitt's lymphoma of the breast. This disease appears to be extremely rare or nonexistent in peri- and postmeno-

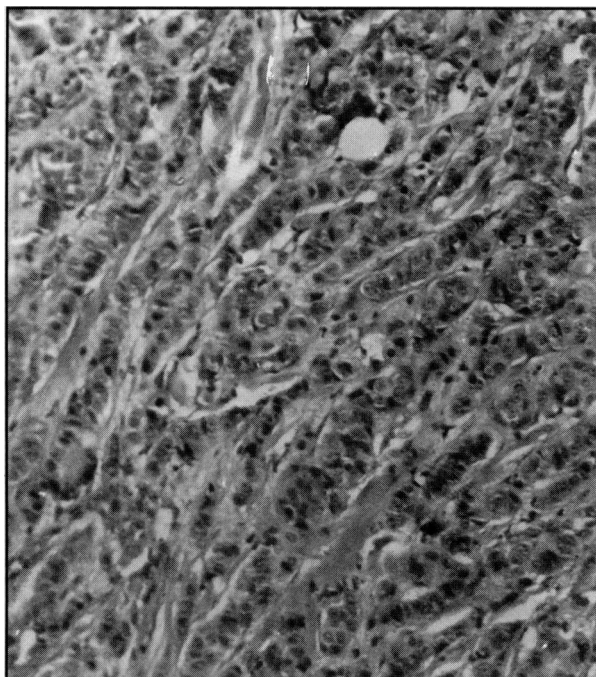


Figure 3. Indian file pattern in a case of lobular carcinoma of the breast.

pausal women in Africa.

The average survival time of the six patients with bilateral epithelial cancers was 6.5 months. The four patients who had bilateral invasive lobular carcinoma survived an average of 3 months. The one patient with bilateral medullary carcinoma survived up to 36 months.

DISCUSSION

Most of the patients who presented with bilateral malignant tumors of the breast died in a matter of months. None of them survived up to 2 years or above. The average survival time of the 18 patients in this study was about 7 months. It would appear that bilateral synchronous malignant breast tumors in Nigerian black African women are a rapidly progressive and aggressive disease in all cases, whether the patients were treated or untreated, and whether they had bilateral Burkitt's lymphoma or bilateral epithelial cancers. The prognosis of bilateral breast cancer in all ages was poor. Similar findings have been reported in white patients.^{5,6}

Histologically, Burkitt's lymphoma, invasive lobular carcinoma, and medullary carcinoma were the main histological types of neoplasms that gave rise to bilateral breast tumors in this study. Burkitt's lymphoma was the most common histological neoplasm

TABLE. SURVIVAL TIMES FOR 18 NIGERIAN PATIENTS WITH SIMULTANEOUS BILATERAL BREAST TUMORS

Survival Time (Months)	Histological Types		Total
	Burkitt's Lymphoma	Epithelial Tumors	
<1	2	0	2
1 to 5	6	5	11
6 to 11	1	0	1
12 to 15	2	2	4
Total	11	7	18

that gave rise to bilateral tumors in this part of tropical Africa. Patients with this disease die rapidly, sometimes within a matter of days as noted earlier by Aghadiuno and Ibeziako.⁷

The patients with bilateral epithelial cancer had an equally poor prognosis. In this study, invasive lobular carcinoma appeared to be the most common epithelial cancer to give rise to bilateral breast disease. The average survival time of the four patients who had this histological type of cancer was 3 months. In the United States, it has been reported that the 5-year survival rate for infiltrating lobular carcinoma is 34% compared with that of 65% reported in patients with papillary carcinoma.⁸ Infiltrating lobular carcinoma may appear to have a poorer prognosis compared with other histological types of breast cancer in both white and black patients, particularly when they give rise to bilateral breast cancers.

Bilateral inflammatory carcinoma as observed in one of our cases is another obvious prognostic factor influencing the survival time in breast cancer in Nigerian women. This patient with inflammatory breast cancer had bilateral invasive lobular carcinoma; she survived for 12 months. Inflammatory carcinoma is one of the poor prognostic factors enumerated for white women with breast cancer.⁷

Distant metastasis is another poor prognostic factor that was observed in this study. Autopsies performed on some of the dead patients showed that the various histological types of breast cancer had widespread metastases to various organs of the body including the liver, lungs, skull, vertebrae, brain, kidneys, and endocrine glands. Remarkably, Burkitt's lymphoma has been constantly found never to invade the lung parenchyma; however, it appears to have a predilection to metastasize to the endocrine organs such as the pituitary, thyroid, adrenals, ovaries, and pancreas. This is an important finding as moribund patients dying of

Burkitt's lymphoma in tropical Africa, where the disease is endemic, may benefit from the administration of steroids.

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duce the level of antibodies in the serum to perfect profiles. Basic knowledge of biochemistry clearly shows that as antibodies and other globulins rise, including fibrinogen, albumin levels must fall in order to maintain osmotic pressure. Further evidence of this is that the total number of serum proteins remains fairly constant in those affected by poverty and also in the elderly. In both cases, it is the level of serum albumin that is reduced.⁸

In summary, it seems clear that the only way to maintain perfect serum profiles is by removing the "overload" from the immune system. It has been reported that blacks have higher levels of antibodies than whites.⁹ My studies indicate that the only way to remove this overload from the immune system is by improved hygiene. Higher levels of antibodies in blacks does not appear to be a genetic factor, but an environmental one. It is the same with the report that albumin is lower in blacks than whites.³ Clearly, all this evidence shows that blacks and whites are equal, given the same opportunities and education.

Todaro and Green¹⁰ showed that cells grown in the presence of optimal levels of albumin lasted up to 10 times longer with almost none

turning to cancer lines. This may be explained by the remarkable ability of albumin to detoxify impurities that may be a factor in causing cells to mutate.¹¹ Albumin is an excellent, overlooked measure of homeostasis. It has many forgotten roles such as controlling colloidal/osmotic pressure and transporting magnesium, copper, zinc, hormones, bilirubin, uric acid, calcium, and vitamins. We tend to forget that thyroid and calcium homeostasis cannot be achieved without proper albumin levels. It also imparts the correct viscosity to the blood. Further, it can be regarded as a very high-density lipoprotein transporting fatty acids, perhaps playing an important role in the association between high-density lipoprotein and cholesterol.³ Albumin helps buffer the pH of the blood, stabilizes red and white blood cells, and helps control the equilibrium of the fluids in the connective tissue. It also is important in the binding of drugs and is an excellent antioxidant. The flow of nutrients and wastes depends on maintaining "optimal" albumin levels throughout life.

Albumin may be an excellent scientific measure of poverty. It is also an ideal measure of aging and disease status. Clearly, it joins all of

these sciences together. The lower the albumin, the greater the stress on the physiology. My studies, underway since 1986, in attempts to restore albumin in volunteers by improved standards of hygiene, has been most encouraging.⁶ In the last 30 years, I have lived in areas of poverty throughout the world and seen first hand the strong link to poor hygiene. I am certain that while diet is important, it does not explain the high incidence of disease and cancer because calorie-restricted animals live up to 50% longer and experience far lower incidence of disease, including cancer.¹² Too many people living under conditions of poverty have no access to motor vehicles and thus are forced to walk, guaranteeing more exercise. It seems clear that diet and exercise are not the reasons.

I call on all medical practitioners to take advantage of their unique role and educate their patients, rich or poor, black or white, on the importance of personal hygiene. Twelve years ago, I tried to convince the medical establishment that even the minute viruses that cause infections to the upper respiratory tract are often spread far more efficiently by fingernails, via self-inoculation, than by aerosol¹³; few

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