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ORTHOPAEDICS
Case Report

The Long Bones Exemplify the Selectivity of Cryptogenic Metastasis in Cases of Follicular Thyroid Carcinoma in Nigeria

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Received: August 28, 2015; **Published:** October 03, 2015

Abstract

A curious aspect of cancer metastasis is the peculiar selectivity that may arise. In 1974, the author reviewed such selectivity patterns and demarcated 12 classes. Perhaps, the most obscure was that of "cryptogenicity" which is sub defined as the appearance of the secondary tumor mass even though the primary origin was still hidden! Therefore, this paper spotlights cases in which a fractured long bone turned out to be due to that follicular cancer which is diagnostic of the seemingly silent thyroid gland. These findings are in keeping with the recommendation that the establishment of a histopathology data pool facilitates epidemiological analysis. It was searching the pool, which I had had set up in a Nigerian community, that led to the discovery of some cases of cryptogenicity. They are therefore reported here. The possible role of target therapy of this cancer is also considered in terms of a newly named "Erythrocyte Associated Necrosis Factor."

Keywords: *Thyroid; Follicular cancer; Primary; Secondary; Selectivity; Cryptogenicity; Necrosis factor; Target therapy; Nigeria*

Introduction

A peculiar phenomenon that has been known for centuries is the tendency of certain cancers to colonize secondary sites in a very surprising way. [1] Incidentally, the celebrated work on it by Stephen Paget appeared in the Lancet concerning the breast in 1889. [2] Incidentally, it happened that, within that family circle, his father, James Paget, [3] was conversant with this phenomenon.

My review published in 1974 had demarcated 12 varieties of this peculiar phenomenon. [4] More curiously, there is the shining example of the cryptogenic type, an adjective said to have been first used in 1908 to mean of obscure or unknown origin. [5] In cancer, it means that a primary growth lies hidden whereas its off springs flourish openly elsewhere.

To go further, let us consider its epidemiology. In this regard, Macartney's group6 proposed that the establishment of a histopathology data pool aids in epidemiological analysis. This was established personally as a Reference Pathology Laboratory serving the Ibos or Igbos, [5] who constitute one of the largest Ethnic Groups in Nigeria. Following the cessation of the Civil war in 1970, I began to collect data using biopsy specimens submitted by numerous doctors scattered in hospitals throughout the community. On this account, my 36 papers written within a 4-year period were approved for the MD Thesis of Glasgow University. [8] Incidentally, I demonstrated in it that whatever was unique or important turned up from somewhere! Indeed, the neoplasms reported therein were in chronological order as follows: melanoma, alimentary tract carcinoma, teratoma, eye enucleation, uterine cervix, testes, hepatocarcinoma, angioma, granular cell myoblastoma, lymphosarcoma, oral cavity, and choriocarcinoma.

In this context, the next organ to consider is the thyroid gland. Exceptionally, this happens to be an organ whose very follicular carcinoma appearance is diagnostic of its presence. Accordingly, since any cryptogenic metastasis of it is readily identified, this paper reports the involved such long bones which were found in a Nigerian community. These cases necessitated tabular categorization.

Results

S. No	Lab No	Sex	Age	Bone	Side	Symptom	Fracture
1.	H/36/79	F	32	Femur	R	Pain	+
2.	685/88	F	70	Humerus	R	Swelling	-
3.	H70/88	M	50	Femur	Both	Pain	-
4.	H170/93	F	45	Femur	R	Pain	+
5.	H20/99	F	63	Femur	R	Pain	+
6.	9508/03	F	50	Humerus	R	Pain	-

Table 1: *Cryptogenic long bone metastases in cases of follicular carcinoma of the thyroid gland in Nigerians.*

Discussion

This series has revealed the striking ascendancy of females and the selective involvement of the femur, a long bone, as regards pathological fractures. Elsewhere, I drew attention to the history of such fractures. [9] In this context, an Editorial [10] in the British Medical Journal decisively expatiated on it with emphasis on future management thus: "The resources for dealing with disabling secondary disease will need to be correspondingly increased if these patients are to live the end of their lives in dignity and without pain."

What are the chances of management in this community, which greatly suffers due to lack of resources? Actually, a major problem has arisen. It is that there is the misguided popularity of the indigenous bone setters to whom patients go! Indeed, their mismanagement of the hapless patients has been described by Ofiaeli. [11] Of course, health education is the answer.

As to the future, there is the pertinent prospect of the target therapy of cancer. In sum, as I see it, there is need to explore the opportunity offered by my discovery of the "Erythrocyte Associated Necrotic Factor" (EANF). [12] Indeed, I drew attention to how Nora Schuster [13] presented an astounding anomaly way back in 1929. Thus, she did exclaim that she did not know how "A large fungating tumor of the lung infecting every other organ of the body should leave the opposite lung completely free from direct or indirect spread". Significantly, it is explicable on the basis of Factor, EANF, which is derived from lung tissue, and must necessarily perform best in the lung soil just across the midline! [14] In other words, its perfect performance is why tumor cells of lung origin scarcely survive in the contralateral soil.

Conclusion

In all probability, if thyroid and other cancers are subjected to translational researches based on the EANF, whose necrosis affected materials should comfortably be obtained fresh from the thoracic ducts of consenting patients, scientific breakthroughs could arise and conduce to cancer cure.

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Volume 2 Issue 3 October 2015