

## The Epidemiology of Neurofibroma in Infancy and Childhood among Nigerian Igbos

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### Abstract

**Background:** The neurofibroma has been defined as a fibroma composed of “nervous and connective tissue” and held to have been first used in 1892. Moreover, an illustrated book without a figure defined it alike. Furthermore, a weighty tome also explained this similarly. Hence, what are the epidemiological features? The answer is based on a UK group that considered the use of a histopathology data pool in its analysis.

**Materials and Methods:** This paper contributes with personal experiences obtained among an Ethnic Group in Nigeria using a Reference Pathology Laboratory in which I was the pioneer pathologist from 1970 to 2010.

**Results:** It was remarkable that, up to 5 years, males predominated in consonance with the Igbo mothers' preference for sons; as regards females the oldest teenage group was prominent in accord with their noted trend to seek attractiveness.

**Conclusion:** This paper gives the epidemiological features of neurofibroma among the Igbo ethnic group domiciled in a developing community.

**Keywords:** Neurofibroma; Epidemiology; Age; Sex distribution; Igbos

### Introduction

According to Merriam-Webster's Collegiate Dictionary [1], neurofibroma means “a fibroma composed of nervous and connective tissue.” It was held to have been first used in 1892. Moreover, an illustrated textbook contained, without giving a figure, the same description [2]. Furthermore, a practical textbook held the same view [3].

In this context, what are the epidemiological perspectives? Now, there is a strongly canvassed opinion that a histopathology data pool is useful in epidemiological analysis [4]. Therefore, this paper's contributions are based on such a pool which started functioning under me.

### Materials and Methods

The Government of the Eastern Region of Nigeria started a Reference Pathology Laboratory at Enugu in 1963. However, it began functioning anew only in 1970 after the cessation of the Civil War in 1970 with me as the pioneer pathologist. This favorable establishment was boosted largely by my insistence on submitting formalin fixed specimens with printed Request Forms containing essential data. The materials proved useful as vantage points in the pursuit of epidemiological data, the present one being on the neurofibroma among the Igbos whose anthropology was written nicely by a foreigner [5].

### Results

These are tabulated thus:

Age	M	F	Total
0-5	13	3	16
6-10	6	9	15
11-15	10	8	18
16-19	5	10	15
Total	34	30	64

**Table 1:** Epidemiological data on Igbos with neurofibroma.

Site	Number
Head	28
Neck	5
Chest	6
Abdomen	5
Upper limb	6
Lower limb	13
Penis	1
Total	64

**Table 2:** Distribution according to sites.

There were altogether 46 doctors who submitted specimens from 16 hospitals. However, both the National Orthopaedic Hospital and the University of Nigeria Teaching Hospital accounted for up to 46 cases; 14 other hospitals featured.

What of the diagnoses recorded in the Forms? Up to 14 cases (23.4%) were correctly diagnosed. The next following popular diagnosis was 5 regarding the hemangioma. Next, there was hamartoma with 3 cases as well as 2 cases each for the nevus, lipoma, dermoid cyst, fibroma and lymphoma. The rest of the cohort was described with such variegated diagnoses as gynecomastia, sebaceous cyst, fibrochondroma, Burkitt, fibromatosis, papilloma, adenoma, ptosis, tuberculosis, and goiter. There was no preliminary diagnosis from a sole requester.

The specimens could not be measured in 2 cases because of fragmentation. Those measuring 1 cm to 5 cm numbered 32; from 6 cm to 10 cm, there were 19 cases, the rest measuring more than 10 cm across. As for the duration before reportage, there were 28 cases as neonates. Only 6 came within the first 5 years, the rest being over 10 cm across. Usually at birth or not long after, there were as many as 32 cases (50%) whereas 19 waited for up to 10 years. The rest came later.

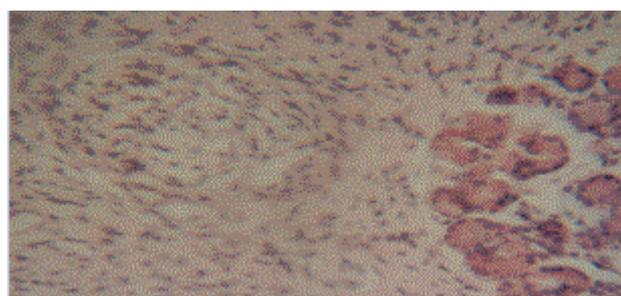
## Discussion

Did the book on the Igbos throw light on the observed epidemiological trends? I think so. For one thing, it is recorded that “one of the most pleasing characteristics of the Ibos is the bond at affection between mother and son.” This is borne out in (Table 1). For another thing, this Table also shows the prominence of the older female teenagers. This is compatible with another Igbo pattern, namely, the urge to increase attractiveness. Accordingly, any blemishes such as facial neurofibromas would make the patients to present at hospitals.

In terms of the biopsies, the accurate diagnosis of neurofibroma itself came short with only 23.4%. This figure contrasts strongly with the wave of odd diagnoses such as “pulpy toc”! Significantly, most of the patients attended the well-established Orthopedic Hospital and Teaching Hospital. The Missionary Hospitals also stood out unlike other hospitals.

On the world stage, a rare case was accompanied by chronic otorrhea [6]. I encountered a similar mass in a 13-year-old boy with tip of nose mass. Concerning the foot, a patient exhibited pain due to tender mass in the medial aspect of her left foot [7]. This precise demonstration was not required in my case of a 14-year-old girl

submitted as “Swelling (R) ankle.” With regard to the salivary glands, of which there were 17 cases reported by Schuller and McCabe [8], the distribution was as follows: Parotids [9-12]; Submandibular, sublingual, and minor salivary gland, 1 each. The local series were all parotid in position which was apparent in 3 Cases (Figure 1), shows the salivary gland and abutting neurofibroma with the diagnostic neuroid body which is arrowed.



**Figure 1:** The arrow points to a neuroid body within neurofibroma abutting on salivary gland.

## Conclusion

This paper gives a bird's eye view of the neurofibroma in this community. In sum, the male: female ratio was almost equal. However, males preponderated during the first 5 years, thereby exhibiting the love noted for ages to exist between mother and son! On the other hand, since our females usually opt for physical well-being and attractiveness, they themselves apply for cosmetic operations. A quarter of the doctors did diagnose these lesions correctly. The neonates numbered more than the rest. Finally, the National Orthopaedic Hospital and the University Teaching Hospital were mostly the curative centers sought for these lesions of the nerves. The Missionary Hospitals also offered the attractive option. Of the regions of the body, the head stood out by involving 29 persons; out of these the scalp predominated with as many as 10 cases, thereby constituting the top most site of presentation. I am not aware of any significance attachable to it, thereby being a subject for future studies.

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