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### **Case Report**

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# Trauma, Cerebral Abscess and Spindle Cell Sarcoma of The Skull in a Teenager

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#### Abstract

One of the gains of forensic pathology is the unmasking of curious lesions. A recent example was the occurrence of the rare papillary carcinoma in the lung in an area in which lung cancer itself does not abound. Therefore, the present paper details the curious combination of trauma, cerebral abscesses and spindle cell sarcoma of skull in a 14-year-old girl in a developing community.

Key Words: Trauma, brain, Abscess, Spindle-cell sarcoma, Skull, Teenager, Igbo.

#### Introduction

Forensic pathology holds sway in medical science in solving the unexpected in the dying phenomenon <sup>(1)</sup>. A recent local example was the chance occurrence of the rare clear cell carcinoma in this developing community <sup>(2)</sup>. Therefore, this report of a rare combination of pathologies is deemed worthy of documentation from the same developing Igbo ethnic group in South Eastern Nigeria <sup>(3)</sup> **Case report** 

OE, a 14-year-old girl attended the Casualty Department manned by the co-author (TN) of The University of Nigeria Teaching Hospital, Enugu, Nigeria, on 12th August, 1971, with the complaints of being hit on the forehead with a piece of wood. The wound became septic with foul smelling odor. X-Ray showed osteomyelitis of the left frontal bone with associated bone loss. She had fits. On examination, there was a fungating tumor of the left fronta-perietal bone. There was leaking of the cerebrospinal fluid as well as left facial palsy of the upper motor neurona type. She was confused and dysarthritic. Meningioma was queried. However, she deteriorated progressively and died within a week.

Autopsy by the senior author (WO) revealed numerous findings. Of most interest externally was a 8 x 6 x 4 cm ulcerated sessile tumor with everted edges situated vertically 2 cm above the middle of the left eyebrow. Microscopically, there was a spindle cell sarcoma replacing bone. The left orbital plate was softened. The cerebral convolutions were flattened. There was a 4 cm diameter abscess in the left frontal lobe containing greenish pus which was smelling like coliform abscess. A smaller abscess was noted just inferior to it. Both ventricles were dilated and turbid fluid welled out from them. The cerebral tissue around the abscesses were greyish and soft. Both lungs were firmly adherent to the chest wall. The

right lung was edematous and there was a small abscess in one area. Mucus exuded on pressure in parts. The other lung showed little or no edema. All organs, including lymph nodes, appeared normal except the salpinx whose mucosa was frondose while the muscularis was congested.

#### Discussion

Sturner took time to document common errors in forensic pediatric pathology, emphasizing "opportunities for mistakes in observation and interpretation"<sup>(4)</sup>. The senior author performed the autopsy in keeping with having been trained at the famous Glasgow Western Infirmary, Scotland <sup>(5)</sup>.

Trauma cropped up early in the history. It probably brought on the inflammation. But, what of the cancer? In this context, trauma has long been suspected as an etiological agent especially in sarcoma <sup>(6)</sup>, including radiation <sup>(7)</sup>.

Spindle cells have been recognized in the literature as being "immunoreactive to CD 34, but nonreactive to desmin and smooth muscle action <sup>(8)</sup>. The recent case gleaned from the literature concerned a space occupying lesion in the brain after surgery and radiotherapy "for a spindle cell sarcoma of the left thigh"<sup>(9)</sup>. In a rare case involving a 56-year-old African-American <sup>(10)</sup>, discussion led to instancing that "The final diagnosis was spindle cell sarcoma." **References** 

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