

# Sacrococcygeal Teratoma in a Developing Community

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Citation: Onuigbo WIB (2015) Sacrococcygeal Teratoma in a Developing Community. J Case Rep Stud 3(5): 501. doi: 10.15744/2348-9820.3.501

Received Date: July 13, 2015 Accepted Date: October 09, 2015 Published Date: October 12, 2015

## Abstract

**Objective:** To determine the parameters of the sacrococcygeal teratoma (SCT) in a developing community.

**Study Design:** An epidemiologic data pool was formed from cases of SCT submitted as surgical specimens to a Reference Pathology Laboratory serving the Igbo Ethnic Group in South-Eastern Nigeria.

**Results:** In all, 18 neonates were diagnosed with SCT. Females preponderated (83%). The patients were presented at birth immediately or within a few weeks. The maximum dimension averaged 8.7 cm. Only 2 cases were delivered by cesarean section. A twin was delivered healthy while the other twin was a still-born. There was no associated anomaly or malignancy. Three cases exhibited striking predominance, namely, isolated cartilage bars, psammoma bodies, and longish stretch of bowel mucosa and muscularis complete with nerve plexuses. In this community, prenatal sonography was not used.

**Conclusion:** SCTs documented from a developing community in Nigeria showed the usual characteristics including 83% female preponderance.

**Keywords:** Sacrococcyx; Teratoma; Sex; Developing community

## Introduction

Sacrococcygeal teratomas are characteristic tumors which have long been recognized. The 1900 case report [1] concerned a female infant who died seven days after birth although “Labour was normal, except that the tumour gave trouble in passing over the perinaeum.” Incidentally, there was no other congenital defect in her body.

Body of knowledge has since then increased with numerous reports from USA [2-7], Canada [8,9], and The Netherlands [10]. Therefore, I propose to report cases which occurred in a Nigerian community whose surgical specimens I had handled personally.

## Materials and Methods

Between 1971 and 1998, surgical specimens were submitted with Clinical Details to a Reference Pathology Laboratory run personally at Enugu, in the South-East of Nigeria. The patients were all of the Igbo Ethnic Group.

## Results

Table 1 summarizes the patterns documented.

Serial No.	Age (week)	Sex	Size (cm)
1	4	F	8
2	2	M	6.5
3	1	F	7
4	2	F	6.5
5	2	M	5
6	2	F	10
7	2	F	12
8	4	F	3
9	12	M	9.5
10	0	F	13
11	3	F	18

Serial No.	Age (week)	Sex	Size (cm)
12	1	F	10
13	12	F	11
14	1	F	12
15	4	F	8
16	4	F	15
17	0	F	4
18	7	F	7

**Table 1:** Pattern of sacro-coccygeal teratoma in Nigerian Igbos

## Discussion

The most striking finding was the preponderance of females to the tune of 83%. This compares favorably with the figures of 74% [2], 78% [4], and 80% [6,7].

Nowadays, prenatal sonography has been facilitating prenatal diagnosis [5,6]. It is relevant to say that, in this developing community, all the patients were diagnosed without this aid. In time, this discrepancy will no doubt be rectified.

Of interest is the encountering of twins [7]. My 10<sup>th</sup> case alone was illustrative. Admitted with twin pregnancy, the first was a 2 kg infant that was delivered with SCT while the second was a macerated still-born without this teratomatous component.

Associated anomalies have been mentioned [2]. In one paper, it included absent eye, vaginal stenosis and esophageal atresia [8]. No such lesions were recorded in this series.

Cesarian section is also of interest [2,8,9]. In the present cohort, there were 2 operations.

Gross findings were often impressive as in the Dutch case that measured up to 10 cm across [10]. Eight of the present cases were of this dimension, the range being from 3 cm to 18 cm (average 8.7 cm).

Microscopic appearances were classical in keeping with the literature. In the occasional case, one tissue may be striking, e.g., pancreas [3], and kidney [4]. What struck me were abundant "psammoma bodies" (case 6), "a longish stretch of bowel mucosa and muscularis complete with nerve plexuses" (case 9), and "isolated cartilage bars" (case 18).

Malignancy may be encountered [1]. As Mahour's group put it [3]. "The presence of areas of necrosis or hemorrhage is strongly suggestive of malignant tumor." I did not encounter this picture.

## Conclusion

In conclusion, the present data from Nigeria have furnished some epidemiologic insights with respect to SCT. This is in keeping with the view of British authors [11] that a histological data pool of surgical pathology may be used for epidemiological analysis.

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