Global Journal of Medical Research: C
Microbiology and Pathology
Volume 17 Issue 1 Version 1.0 Year 2017
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4618 & Print ISSN: 0975-5888

Adult Osteomyelitis in a Developing Community

By Wilson I. B. Onuigbo

Abstract- Osteomyelitis, which means bone marrow inflammation, has been known since antiquity. However, it is still a current challenge. Accordingly, its epidemiology has been studied worldwide. For example, from USA has come a case series. In like manner, the present series comes from a developing community consisting of the Ibos or Igbos, an ethnic group domiciled mostly in South-eastern Nigeria. The study was stimulated by the affirmation of a Birmingham (UK) group that the establishment of a histopathology data pool facilitates epidemiological analysis. The present pool is a Reference Pathology Laboratory. It was striking that, among the 24 patients documented, the males were more often involved than females. Other parameters featured singly such as that the 3rd Decade was the commonest for both sexes.

Keywords: bone, inflammation, osteomyelitis, epidemiology, developing community.

GJMR-C Classification: NLMC Code: WE 251

Strictly as per the compliance and regulations of:

Adult Osteomyelitis in a Developing Community

Wilson I. B. Onuigbo

Abstract- Osteomyelitis, which means bone marrow inflammation, has been known since antiquity. However, it is still a current challenge. Accordingly, its epidemiology has been studied worldwide. For example, from USA has come a case series. In like manner, the present series comes from a developing community consisting of the Ibos or Igbos, an ethnic group domiciled mostly in South-eastern Nigeria. The study was stimulated by the affirmation of a Birmingham (UK) group that the establishment of a histopathology data pool facilitates epidemiological analysis. The present pool is a Reference Pathology Laboratory. It was striking that, among the 24 patients documented, the males were more often involved than females. Other parameters featured singly such as that the 3rd Decade was the commonest for both sexes.

Keywords: bone, inflammation, osteomyelitis, epidemiology, developing community.

I. Introduction

In the words of Lew and Waldrogel (1), "Known since antiquity, osteomyelitis is a difficult-to-treat infection characterized by the progressive destruction and new apposition of bone." From Brazil (2), there is the report that, over the last 30 years, "the pathogenesis of osteomyelitis has almost been totally elucidated, and many factors responsible for the persistence of this infection have been identified." Indeed, the view from Columbia (3) is the same over the past four decades. In general, the establishment of the histopathology data pool has facilitated epidemiological analysis (4). Therefore, with regard to an Ethnic Group, the Ibos or Igbos (5), who are domiciled in South-eastern Nigeria, the present paper deals with their own analysis.

II. Investigation

From the end of the Nigerian Civil war in 1970, physicians began to send to me numerous formalin-fixed specimens. They were submitted with standard clinical details until the 1990s. Accordingly, the osteomyelitis data were carefully assembled with reference to epidemiological analysis, especially as regards the adults.

III. Results

Table 1 summarize the local data. At first glance, only the earliest 2 cases were from outside the capital city, Enugu. Unfortunately, the named doctor was a German who died after performing the autopsy on an unrecognized case of Lassa fever. Incidentally, he lived long enough to have sent to me many cases of teenage appendicitis (6). The rest of the doctors operated in the National Orthopedic Hospital, Enugu, where Dr. Osisioma held the pride of place as the saying goes!

Table 2 shows that the males preponderated over the females in the ratio of almost 3 to 1. It also shows that the 3rd decade was the commonest for both sexes.

Table 3 reveals the sites affected. Clearly, the bones of the lower extremities were most commonly affected.

Regarding the duration of the illness before the attendance at the hospital, two patients boldly attested to the duration of 50 and 54 years respectively. Three old people generalized that the lesions started during childhood. Up to 9 patients admitted to the duration of only up to 1 year. For 8 patients, it was up to 2 years.

IV. Discussion

For years, it has become clear that the prevention of bone infections is most important, including the prevention of infection after surgery (6). Of course, case series are needed (7). In this context, retrospective study is well worth it as in that of Gallaher's group (8). As they concluded, "Daptomycin appears to be an effective therapeutic choice with an acceptable safety profile in the management of osteomyelitis that does not involve hardware." Of course, these comments pertain readily to developed communities. The ball should roll pertinently to the developing communities, seeing that what I receive is not clinical management information but the osteomyelitis specimens themselves.

Author: Department of Pathology, Medical Foundation and Clinic, 8 Nsukka Lane, Enugu 400001, Nigeria.
e-mail: wilson.onuigbo@gmail.com

Table 1: Epidemiologic data concerning adult osteomyelitis

S/No	Lab. No	Initials	Gender	Age	Site	Town	Doctors
1	B 946/73	OA	M	55	Rib	Onitsha	Mandrella
2	B 601/73	JC	M	26	Femur	Onitsha	Mandrella
3	261/77	UA	M	51	Tibia	Enugu	Igwe
4	61/78	EM	F	45	Fibula	Enugu	Nwozo
5	H 21/78	IS	M	43	Femur	Enugu	Igwe
6	H 10/80	IJ	M	40	Humerus	Enugu	Igwe
7	H 478/80	OC	F	26	Femur	Enugu	Osisioma
8	H 72/81	ER	M	25	Ilium	Enugu	Ukegbu
9	H 771/81	EM	M	65	Femur	Enugu	Osisioma
10	H 154/82	IC	M	25	Humerus	Enugu	Osisioma
11	H 43/85	EM	F	59	Tibia	Enugu	Iregbulem
12	H 2313/86	ND	M	59	Humerus	Enugu	Osisioma
13	UH 1737/86	OP	M	22	Rob	Enugu	Aghaji
14	UH 929/87	OJ	M	43	Spine	Enugu	Okonkwo
15	UH 1765/87	IC	M	26	Maleolus	Enugu	Amamilo
16	H 156/88	NE	M	24	Humerus	Enugu	Osisioma
17	493/88	IP	M	30	Tibia	Enugu	Amamilo
18	UH 731/89	NJ	F	22	Tibia	Enugu	Okonkwo
19	H 10/90	IJ	F	66	Spine	Enugu	Ukegbu
20	H 19/90	IB	M	55	Tibia	Enugu	Nwozo
21	H 81/90	ON	F	25	Fibula	Enugu	Osisioma
22	H 165/91	OJ	M	54	Hip	Enugu	Osisioma
23	H 202/91	OU	M	33	Finger	Enugu	Osisioma
24	9301132	AP	F	70	Tibia	Enugu	Odukwe

Table 2: Sex pattern of lesions

	Male	Female	Total
21 – 30	7	3	10
31 – 40	2	0	2
41 – 50	3	1	4
51 – 60	4	2	6
61+	1	1	2
Total	17	7	24

Table 3: Site preference

Site	No.
Tibia	6
Femur	4
Humerus	4
Fibula	2
Ilium	2
Spine	2
Rib	2
Maleolus	1
Finger	1
Total	24

References Références Referencias

1. Lew DP, Waldvogel FA. Osteomyelitis. N Engl J Med, 1997; 336:999. DOI: 10.1056/NEJM19970403 3361406.
2. Jorge LS, Chueire AG, Rossit ARB. Osteomyelitis: A current challenge. Braz J Infect Dis, 2010; 14:3.
3. Calhoun JH, Manring MM, Shirtliff M. Osteomyelitis of the long bone. Semin Plast Surg, 2009; 23(2): 59-72. doi: 1055/s-0029-1214158.
4. Macartney JC, Rollaston TP, Codling BW. Use of a histopathology data pool for epidemiological analysis. J Clin Pathol 1980; 33: 351-353.
5. Basden GT. Niger Ibos. Cass, London 1966.
6. Norden CW. Prevention of bone and joint infections. Am J Med, 1985; 78(suppl 6B): 229-232.
7. Fraimow HS. Systemic antimicrobial therapy in osteomyelitis. Semin Plast Surg, 2009; 23(2): 90-99. doi: 10.1055/s-0029-1214161.
8. Gallagher JC, Huntington A, Culshaw D, et al. Daptomycin therapy for osteomyelitis: A retrospective study. BMC Infect Dis, 2012; 12: 133. DOI: 10.1186/1471-2334-12-133.