

Persistent Peripheral Lymphadenopathy in Childhood in Ibadan

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Summary

Yawe T, Ladipo JK, Thomas JO. **Persistent Peripheral Lymphadenopathy in Childhood in Ibadan.** *Nigerian Journal of Paediatrics* 2000; 27:70. Persistent enlarged lymph nodes are common in childhood. This study reviewed the common histopathological diagnosis of biopsied lymph nodes from children seen in the department of Pathology University College Hospital over a 2-year period. The overall diagnostic yield of the biopsied nodes was 70 percent with tuberculosis being the most frequent diagnosis (58.2 percent) especially in enlarged cervical nodes. Reactive hyperplasia (29.9 percent) was more commonly diagnosed in the inguinofemoral nodes.

Introduction

ENLARGED lymph nodes are encountered in many conditions either as a reaction to local or systemic disease, the central focus of which is not necessarily in the lymphoid system. In some instances, enlarged nodes are the initial or most prominent manifestation of the disease and may be the indication for investigations. It has been suggested that biopsy should be done in patients with persistent lymphadenopathy without adequate cause and also in the presence of newly recognized nodes, greater than 1cm diameter or not known to arise from previously recognized cause.^{1,2}

Lymphadenopathy in children is common, however, studies on the pattern of diseases in biopsied nodes from children in our environment are relatively scanty in the literature. Earlier reports on biopsied peripheral lymph nodes indicated that the common findings were reactive hyperplasia followed by tuberculosis, lymphoma and secondary tumours.³ In view of the changing pattern of diseases, this study was undertaken to investigate disease pattern of

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biopsied lymph nodes specifically in children from Ibadan to update information on current trends and causes of lymph node enlargement in the tropics for practicing clinicians.

Materials and Methods

The records of all lymph node biopsies seen in the Pathology Department of the University College Hospital, Ibadan, between July 1987 and December 1989, were extracted from the Surgical Pathology Day Registers. Demographic data of the patients and site of biopsy of the nodes were extracted from the patients' records. The slides were reviewed by the pathologist (JOT) and histological diagnosis recorded. Lymph node biopsy data of patients aged 0-14 years were extracted from this and analysed.

Results

During the 30-month period between July 1987 and December 1989, four hundred and thirty-nine (439) peripheral lymph node biopsies were received in the Pathology Department of the University College Hospital. Of these, 134 were from children aged 3-14 years. There was a slight male preponderance with a male to female ratio of 1.5:1. Table I shows the age distribution and frequency of diseases diagnosed whilst Table II shows the range of diagnostic lesions against the anatomical biopsy sites. The most frequently biopsied group was aged 6-10 years (45

percent). The most frequently biopsied nodes were cervical nodes (67 percent of cases). Tuberculosis was the most common diagnosis, which in most instances involved the cervical nodes (61 cases). Reactive hyperplasia, the second most common diagnosis was more likely to be made in biopsied inguinofemoral nodes, as all nodes from the inguinal area showed reactive changes. The main malignancy involving the nodes, were non-Hodgkin's lymphomas with two cases of Burkitt's lymphoma in the peripheral cervical lymph nodes. There were two cases with metastatic nasopharyngeal carcinomas. The overall

diagnostic yield of lesions in the biopsied nodes was 70 percent.

Discussion

The enlargement of localized lymph nodes in children in the absence of a primary disease remains a diagnostic and therapeutic dilemma to the clinician. It has been observed that the investigation of such nodes may be difficult for both the patient and the physician, in situations where investigative facilities are limited, unavailable or unaffordable by the patient. Knowledge of the common and likely causes of peripheral lymphadenopathy in childhood would therefore be useful to practicing physician in these situations.

This study, unlike previous reports from Ibadan,³ show that tuberculosis is the commonest cause of biopsied peripheral lymph nodes in children. Similar trends have also been observed in other centres in Nigeria.^{5,6} This would indicate that tuberculosis is a significant cause of persistent lymphadenopathy in children and must be excluded in any child with cervical lymph node enlargement and this can easily be achieved by the use of fine needle aspirate. This

Table I

Showing the age Distribution and Frequency of Diseases Diagnosed from Biopsied Node

Age	Tuberculosis	Lymphoma	Carcinoma	Reactive	Others
0-5	16	0	0	3	0
6-10	39	6	1	23	1
11-14	23	7	1	14	1

Table II

Showing Node Sites Against Frequently Diagnosed Diseases

Diseases	Sites of biopsy				Total	percent
	Cervical	Axillary	Inguinal	Unspecified		
Tuberculosis	61	14	0	3	78	58.2
Lymphoma (NHL Burkitt's)	10	3	0	0	13	9.7
Carcinoma	2	0	0	0	2	1.5
Reactive hyperplasia 1	5	7	10	8	40	29.9
Others	1	0	0	0	1	0.7
	89(67)*	24(18)	10(7)	11(8)	134	100

NHL: Non-Hodgkins lymphoma

* : Figures in parentheses are percentages

site may be affected by spread from tonsillar infection, or by spread from the hilar and mediastinal nodes.

The high prevalence of tuberculosis probably a reflection of the poor economic situation, poor nutrition, overcrowding, ineffective immunization and multiple infections compounded with diminished immunity. The possibility of human immunodeficiency virus infection must also be considered.

Reactive hyperplasia was diagnosed in 29.8 percent of cases, involving mainly the inguinal nodes. The latter finding is probably due to non-specific lymph node changes from repeated trauma or infections resulting from walking barefooted.

Therefore, the inguinal lymph node is not a suitable site for biopsy and histological assessment, especially in the tropics and developing countries. It is important to note, that 25 percent of non-diagnostic reactive nodes may subsequently become diagnosed as or develop lymphoma.⁷ Therefore patients with clinical suspicion and a diagnosis of non-specific reactive hyperplasia should be followed up.

The high positive yield of cervical lymph nodes justifies the frequency of biopsies, from that site. Protozoal and filarial infestations were not seen, confirming that these are uncommon causes of peripheral lymphadenopathy in Ibadan.

In conclusion, it should be emphasized that the findings in this study reflect the disease pattern in persistent lymph node enlargement, which are likely to be biopsied. However majority of enlarged lymph

nodes in children is often in response to detectable local infections and is therefore not biopsied.

References

- 1 Olafunwa JO, Olomu IN, Onyia MJ. Primary peripheral lymphadenopathy in Jos Nigeria. *West Afr J Med* 1992; **11**: 24-8.
- 2 Slap GB, Brooks SJ, Schwartz S. When to perform biopsy of enlarged peripheral lymph nodes in young patients. *JAMA* 1984; **252**: 1321-6.
- 3 Attah Ed. B. Peripheral lymph node enlargement in children. *West Afric Envir Child Health* 1974: 184-6.
- 4 Atta EB. Peripheral lymphadenopathy in Nigeria. *Trop Geogr Med* 1974; **26**: 25660.
- 5 Adedeji MO, Aghahowa J. The diagnostic value of lymph node biopsies in Benin City, Nigeria. *East Afr Med J* 1989; **66**: 127-33.
- 6 Ademiluyi SA, Ijaluola GT. Persistent palpable cervical lymph nodes in Nigerian children. *Ann Trop Paediatr* 1988; **8**: 153-6.
- 7 Sinclair S, Beckman E, Ellma L. Biopsy of enlarged superficial nodes. *JAMA* 1974; **228**: 602-3.
- 8 Kissare JM, Gerphart GN. Lymphadenopathy in childhood: Long term follow up in patients with non-diagnostic lymph nodes. *Hum Path* 1974; **5**: 431-9.