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ETIO-Pathological Evaluation of Chronic Cervical Lymphadenopathy

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ABSTRACT

Cervical lymphadenopathy is a presenting sign of common problem that ENT surgeons likely to face. For ENT surgeons lymph node is an index of spread of infection and malignancy. In cervical lymphadenopathy, the most likely diagnosis are probably tuberculosis and Hodgkin's disease and malignancy. All patients undergone ne needle aspiration cytology and blood examination as routine. Radiological examination of chest was carried out to find out association of primary lesion in the lung. Biopsy was done as routine. The maximum incidence was found to be of tuberculosis, which was 68%, next was secondaries 14%, Hodgkin's 2%, Non-Hodgkin's lymphoma 8%.

INTRODUCTION

Lymphadenopathy is a presenting sign of a common problem that E.N.T surgeons like to face. Systemic symptoms such as malaise, fever or weight loss may or may not be present and routine laboratory investigations often fail to reveal an answer. Persistent lymph node enlargement without adequate cause requires a tissue diagnosis. Lymph node biopsy is simple and safe but it is not free from worry and discomfort for the patient and it requires surgical operating time and a general or local anaesthetic and risk of injury to the vital structures e.g., vessels and nerves[1,2]. Lymph nodes which are interposed throughout the course of collecting lymphatic channels vary from a millimeter to a centi meter or more in size. They act as altering mechanism within the host that restricts propagating malignant cells and resists spread of infection. There are about 800 lymph nodes in the body of which 300 are in the neck[3]. For a surgeon lymph node is an index of spread of infection and malignancy. Cases of lymphadenopathy are common in our country. There are many causes of enlargement of lymph nodes. Lymph node biopsies are the only certain means of establishing the diagnosis. The microscopic interpretation of abnormal lymph node is extremely dif cult. More errors are made on the lymph node than any other organ in the body[4]. Of the many causes for cervical lymphadenitis, tuberculosis is still a common cause for lymphadenitis. In generalized lymphadenopathy, the most likely diagnoses are probably tuberculosis and Hodgkin's disease. Even though the problem is practically eradicated in Western countries it is still prevalent in India. Lymphnode tuberculosis is a disease of great antiquity. It is commonest of extra pulmonary tuberculosis and is probably the commonest cause of chronic lymphadenitis in children. Even after the advent of effective chemotherapy for tuberculosis, it still poses considerable problems in diagnosis and management[5,6]. The diseases even presents as painless lymphadenopathy of superficial lymph nodes of insidious onset.

MATERIALS AND METHODS

The clinical material consists of patients randomly selected with history of cervical lymphadenopathy, who came to E.N.T. OPD. Patients were selected randomly and 100 cases were personally studied by me in present series.

Inclusion Criteria:

- Patients with enlarged lymph nodes more than 3 months.
- Age >5 years and <75 years.

Exclusion Criteria:

- Age <5 years and >75 years.
- Neck swellings other than lymphadenopathy.
- Acute causes of cervical lymphadenopathy.

A pro-forma is drafted for study of all patients presenting with chronic cervical lymph node was used. A detailed history was taken and a note was made regarding age, sex, duration of symptoms, constitutional symptoms and history of contact with tuberculosis patient. A complete physical examination was carried out. In local examination, importance was given to the site, size, laterality, number, matted/discrete, secondary changes, level of the cervical lymph nodes and involvement of other (inguinal/axillary) lymph nodes. Systemic examination also carried out. An attempt was made to find out the primary tumour in cases of lymph nodes suspicious as secondaries in neck. After making a clinical diagnosis, further investigations were carried out to con rm the diagnosis. Routine investigations included hematological and radiological. FNAC was put in the front line for diagnosing and to get a cytological diagnosis at hand. Immunohistochemistry was not done because of limitation of those facilities. Lymph node biopsy was carried out meticulously, it was studied grossly, and sent to pathologist for expert opinion. Further tests were carried out on the basis of histopathological diagnosis (for example, secondaries in the neck). Further, contrast radiological investigations, Pan-endoscopy carried out in relevant cases. Having come to conclusion of diagnosis, treatment was instituted appropriately. Medical treatment was employed predominantly for conditions like tubercular adenitis, infective lymph node swellings. All patients were asked to attend the surgical outpatient department for follow-up after discharge. Necessary advice was given.

RESULTS AND DISCUSSIONS

Table 1: Showing Diagnostic Co-Relations of FNAC

	Diagnosis					
FNAC	**TB**	**HL**	**NHL**	**NS**	**Sec**	**Total**
TB	60					**60**
NS	8	2	8	8		**26**
Sec					14	**14**
Total	**68**	**2**	**8**	**8**	**14**	**100**

(Table 1) All cases underwent FNAC. Of these 60 cases reported as tuberculosis out 68, 14 cases were reported as secondaries and 26 cases reported as Non specific and they all underwent Biopsy .

Table 2: Showing Diagnostic Co-Relations of Histopathology

	Histo-Pathological Correlation				
Clinical Findings	**TB**	**HL**	**NHL**	**NS**	**Total**
Lymphoma		2	8		10
Non specific	8			8	16
Total	8	2	8	8	26

(Table 2): Shows total 26 patients underwent biopsy, out of which 8 reported as tuberculosis, 2 as Hodgkin's Lymphoma, 8 reported as Non-Hodgkin's Lymphoma, 8 were Non-specific.

Table 3: Showing Treatment and Outcome

Diagnosis	No. of cases	Treatment	No. of cases	Outcome	
				Recovered	Referred
TB	68	**ATT**	62	62	-
		I and D+ATT	4	4	-
		Medical	2	2	-
HL	2	**Chemotherapy**	2	2	
NHL	8	Chemo	8	8	
NS	8	Medical	4	4	
		Tonsillectomy	4	4	
SCC	14	**Chemo/RAD**	4	-	4
		Referred	10	-	10

(Table 3) shows the treatment given and its outcome. Tuberculosis which was detected in 68 patients, out of which 4 patients had cold abscess, had undergone incision and drainage. All patients were given anti tubercular drugs for 6 months isoniazid, Rifampicn, Pyrizinamide, Ethambutol for two months, Isoniazid, Rifampicn, for four months all the patients were followed up to 12 months, symptoms had decreased and general health improved. In 14 patients secondaries were found, referred to higher centre for treatment. Hodgkin's Lymphoma were 2 patients treated with chemotherapy MOPP regimen Mechlorethamine, Vincristine, Procarbazine, Prednisolone. Cycle repeated 4 weeks (1 and 4 only), Total of 6 cycles given. Non-Hodgkin's Lymphoma were 8 cases, treated with chemotherapy Cyclophosphamide, Adriamycin, Oncovin, Prednisolone, Repeated. Total 8 cycles were given. 4 cases had tonsillectomy, other 4 cases of non-specific Lymphadenopathy responded to medical treatment.

Table 4: Cervical LymphAdenopathy with HIV

Diagnosis	Number	HIV
TB	68	8
HL	2	0
NHL	8	0
NS	8	0
SCC	14	0
Total	**100**	**8**

During routine investigations HIV was the incidental Finding, which was detected in 8 cases with cervical lymphadenopathy, FNAC and biopsy concluded, it was Tuberculous Lymphadenopathy.

Table 5: Table Showing Levels of Lymph Nodes and Diagnosis

	Diagnosis					
Group	**TB**	**HL**	**NHL**	**NS**	**SCC**	**Total**
Level I	10				2	12
Level IIa	36					36
Level IIb	4	2		2	8	16
Level III				4		4
Level IV	4				4	8
Level Va	4		4	2		10
Level Vb	4		4	2		10
Level VI				2		2

(Table 5) Shows that most commonly Level IIa is involved, next Level Iib followed by level I, next is level V, least common is Level VI.

Table 6: Correlation of Cytological Diagnosis with Histological Study

Series	Tuberculosis	Non-specific reactive hyperplasia	Hodgkin's Lymphoma	Non-Hodgkin's Lymphoma	Metastatic carcinoma
R.K. Narang [17]	30	04	06	06	14
Present Study	60	08	02	08	14

In our study all 100 cases underwent FNAC. Of theses 60 cases reported as tuberculosis, 14 were reported as secondaries (for which biopsy of primary was done and confirmed). Reports of another 26 cases were inconclusive and they all underwent Biopsy. Out of these 8 cases reported as tuberculosis, 2 cases as Hodgkin's Lymphoma, 8 cases reported as Non-Hodgkin's Lymphoma, 8 were non-specific. Our findings are similar to those of R.K. Narang[7,8] in his studies he found there were 31 cases of tubercular lymphadenitis diagnosed by histopathology. Twenty seven (87%) were correctly diagnosed by ne needle aspiration cytology. In the remaining cases, epitheloid cells or giant cells could not be identified and they were mis diagnosed as reactive hyperplasia, Hodgkin's and non-Hodgkin's lymphoma. On the whole, tuberculous smears hypo cellular or, in some cases, normocellular but never hyper cellular. Success result of ne needle aspiration cytology in tubercular lymphadenitis was 80%,. ,7.18% and 83.33%. Histopathological findings in 242 lymph node biopsies received in Jos University Teaching hospital over a 10 year (1988-1997) were reviewed. Tuberculosis is the most predominant lesion (33.05%), followed closely by the non-Hodgkin's lymphoma (31.4%). Burkitt's lymphoma accounting for one-quarter of all the cases of non-Hodgkin's lymphoma had a peak age range of 8-10 years[9,10]. The success rate of diagnosis of metastatic carcinoma was 100 percent in this study. The presence of clusters of atypical large alien cells indicated the diagnosis at a glance. The cells show all the general features of malignancy.

CONCLUSION

In investigations, ne needle aspiration cytology was found to be accurate with 88% accuracy for the diagnosis of tuberculosis, 100% for secondary metastasis. In 26% of cases FNAC was inconclusive, they all underwent biopsy for further confirmation.

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