



A STUDY ON CLINICO-PATHOLOGICAL EVALUATION OF CERVICAL LYMPHADENOPATHY

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ABSTRACT

Introduction- The evaluation of enlargement of lymphnode in the neck is not an easy task. It is a challenge for the clinician to assess its clinical behaviour and come to a final diagnosis. These diseases, which can be neoplastic also needs correct diagnosis for further management. The study intends to access systematically the various pathological conditions presenting as enlarged lymph nodes in the neck, also the various modalities of clinical presentation and behaviour of these conditions. Appropriate investigations have also been studied. **Aims and objectives:** The study intends to systematically access various pathological conditions presenting as enlarged lymph nodes in the neck, the various modalities of clinical presentation and behaviour of these conditions. **Materials and methods:** Patients of age more than 12 years with enlarged cervical lymph nodes are included as the study population. The proform has been drafted and used for history taking. Patient was examined systematically giving priority to local examination. After making a clinical diagnosis, then relevant investigations were done to confirm the diagnosis. Treatment was instituted appropriately and followed up the patients. **Results:** Majority of the cases in this study had non-neoplastic causes for cervical lymphadenopathy in which reactive lymphadenitis is most common. Male to female ratio of 0.9:1 is noted with most cases between 12 and 30 years. Upper jugular group of lymph nodes was most commonly affected in tuberculosis and reactive lymphadenitis . In lymphomas submandibular and jugular groups of lymphnodes are most commonly involved. **Conclusion:** Clinical symptoms in cervical lymphadenopathy are of limited significance because clinical behaviour can be highly variable. As cervical lymphadenopathy is an important disease, it always calls for meticulous attention, analysis and treatment. FNAC is found to be a frontline investigation of choice with biopsy and histopathological examination done for confirmation. Most of the non-neoplastic lesions are medically curable with limited role for surgery.

KEYWORDS : CERVICAL LYMPHADENOPATHY, TUBERCULOSIS LYMPHADENOPATHY, LYMPHOMA

INTRODUCTION:

- Lymph nodes are organs of the immune system, distributed throughout the body and linked by lymphatic vessels.
- There are approximately 600-800 lymph nodes in the body.
- The enlargement of lymph nodes is significant as it indicates many etiological conditions such as Malignancies, infections, autoimmune disorders, iatrogenic, and miscellaneous, and it is also an index of the spread of infection and malignancy
- In a developing country like India etiology still appears to be infective whereas in western world malignancy is the most common cause.
- Depending upon the duration of the presentation, they can be acute (2 weeks), Subacute (2-4 weeks) and chronic (more than six weeks).
- The assessment of lymph node enlargement in the neck is not an easy task because most of the disease resemble each other on evaluation, and hence for the diagnosis may require a team of pathologists and bacteriologists.

AIMS AND OBJECTIVES:

- The study intends to systematically access various pathological conditions presenting as enlarged lymph nodes in the neck, the various modalities of clinical presentation and behavior of these conditions.

MATERIALS AND METHODS:

- The clinical data consists of all inpatients and outpatients of P.E.S. Hospital Kuppam.
- The study period is from January 2021 to January 2022. This study consists of 100 consecutive cases.

INCLUSION CRITERIA:

- Patients with cervical lymph node enlargement with age more than 12 years of age.

EXCLUSION CRITERIA:

- Patients of age less than 12 years
- Patients in whom FNAC and/or biopsy of a node could not be carried out were excluded

Methodology:

- Patients were examined systematically giving priority to local examination.
- After making a clinical diagnosis, relevant investigations (USG, FNAC) were done to confirm the diagnosis.

RESULTS:

- Most of the cases were non-neoplastic causes for cervical lymphadenopathy
- Male to female ratio of 0.9:1 is noted with most cases between 12 and 30 years
- Upper jugular group of lymph nodes were most commonly affected in tuberculosis and reactive lymphadenitis
- In lymphomas, submandibular and jugular groups of lymph nodes are most commonly involved
- Variable results were noted among the groups of lesions, with regard to local characteristics like number, laterality, mobility and involvement of other group of lymph nodes. FNAC, being inexpensive, quick and easy to perform, it is the most preferred and essential investigation.

Type of lesion	No. of cases	Percentage
Non- neoplastic	87	87
Neoplastic	13	13
Total	100	100

HISTOPATHOLOGICAL DIAGNOSIS

DISEASE	PERCENTAGE
Reactive lymphadenopathy	47%
Tuberculosis	40%
Secondaries	9%

NHL	3%
HL	1%

PAST HISTORY OF TB IN STUDY PATIENTS

PRESENT	9%
ABSENT	91%

SITE DISTRIBUTION IN CERVICAL LYMPHADENITIS

Site	Reactive lymphadenitis	Tb lymphadenitis	secondaries	lymph oma	Total
Level I	9	5	3	2	19
Level II	15	15	2	0	32
Level III	8	4	1	0	13
Level IV	7	2	1	1	11
Level V	8	14	2	1	25
Level VI	0	0	0	0	0
Total	47	40	9	4	100

INVOLVEMENT OF OTHER LYMPH NODES IN CERVICAL LYMPHADENOPATHY

LYMPH NODE GROUP	TB CERVICAL LYMPHADENITIS	REACTIVE LYMPHADENITIS	LYMPH OMA
CERVICAL + INGUINAL	3 (7.5%)	0(0%)	0(0%)
CERVICAL + AXILLARY	2(5%)	1(2.1%)	1(25%)
CERVICAL+ AXILLARY + INGUINAL	2(5%)	0(0%)	0(0%)

DISCUSSION:

In this present study, of 100 cases of cervical lymphadenopathy, 87 were non-neoplastic lesions and 13 were neoplastic lesions.

In a study done by Shafullah and Syed Humayun Shah et al 1 the incidence of non-neoplastic and neoplastic lesions were 90.6% and 9.4% respectively.

In study by Jha BC et al2 who studied 94 cases, of which tuberculosis was confirmed in 63.8% cases. Level II group was most involved in tuberculosis. The result of this study is comparable to the study made by Baskosa DK et al.3 study, wherein tuberculosis level V lymph nodes is most commonly involved. In the present study, reactive lymphadenitis accounted for 47% of cases, 40% turned out to be Tubercular lymphadenitis, with level II most commonly involved.

In this present study, 15 cases (37.5%) showed multiple matted lymph nodes in tuberculous lymphadenopathy. 25 cases (62.5%) shows single discrete lymph nodes, this is comparable to Jha BC et al2. study which showed matted lymph nodes in 38.3% of cases.

Chest X-ray showing healed lesions of previous TB is seen in 10% of patients of present study, which is comparable to the studies made by Maharajan et al4. and Jha BC et al2. series showing 14% positivity and 16% positivity respectively.

In this present study, incidence of Hodgkin's lesion to Non Hodgkin's lesion ratio is 1:3 which is comparable to the study done by waseem et al.5 with a ratio of 1:4.

CONCLUSION:

Symptoms in cervical lymphadenopathy are of limited significance because clinical behaviour can be highly variable. As cervical lymphadenopathy is an important disease, it always calls for meticulous attention, analysis and treatment FNAC is found to be a frontline investigation of choice with histopathological examination done for confirmation. Most of the non-neoplastic lesions are medically curable with limited role for surgery.

In this study, Reactive lymphadenopathy is the most common disease affecting the cervical lymph node (47%) followed by Tubercular lymphadenitis (40%), secondaries (9%) and lymphomas (6%).

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