

Clinical Profile of Cervical Lymphadenopathy: An Observational Study

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Abstract

Background: Tuberculosis (TB) is one of the major public health problems, being the ninth leading cause of death. Extrapulmonary tuberculosis (EPTB) contributes to the burden of the disease, with lymph node TB being the most common form of EPTB. TB lymphadenitis is seen in nearly 35% of EPTB of which cervical LN region is the most common to get involved, seen in 60–90%. The incidence of TB is at an increase due to poor hygiene, poverty, and overcrowding.

Aim: This study aims to study the clinical profile of patients presenting with cervical lymphadenopathy.

Materials and Methods: Patients with TB cervical lymphadenopathy attending outpatient Departments of Pulmonary medicine, Otorhinolaryngology, and General surgery in SVS Medical College and Hospital were reviewed from May 2019 to May 2021. One hundred patients with tuberculous cervical lymphadenopathy who were satisfying the inclusion criteria were included in the study.

Results: Swelling was the presenting chief complaint in 87% of patients, with associated fever in 43% of patients. Weight loss and cough were reported in 9% and 11%, respectively. The right side was found to be a more common side of involvement than left. Bilateral involvement was found in 28% of patients. Matted nodes were seen in 69% of patients, with 43% not maintaining hilum.

Conclusion: Matted lymph nodes on the right side of the cervical region were the most common presentation.

Key words: Clinical profile, Cervical lymphadenopathy, Extrapulmonary TB

INTRODUCTION

Tuberculosis (TB) is one of the major public health problems, being the ninth leading cause of death.^[1] Extrapulmonary tuberculosis (EPTB) contributes to the burden of the disease, with lymph node TB being the most common form of EPTB.^[2,3] TB lymphadenitis is seen in nearly 35% of EPTB of which cervical LN region is the most common to get involved, seen in 60–90%. The

incidence of TB is at an increase due to poor hygiene, poverty, and overcrowding.^[4] TB contributes to 2 million deaths worldwide every year.^[5] It has been reported that host risk factors for EPTB include younger age, female sex, and non-White race.^[6,7] The most common presentation is neck swelling with other presenting signs and symptoms being generalized weakness, weight loss, fever, and headache.^[8]

The present study was taken up with the objective of studying the clinical profile of patients presenting with cervical lymphadenopathy.

Aim

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MATERIALS AND METHODS

Patients with TB cervical lymphadenopathy attending outpatient Departments of Pulmonary medicine, Otorhinolaryngology, and General surgery in SVS Medical College and Hospital were reviewed from May 2019 to May 2021. One hundred patients with tuberculous cervical lymphadenopathy who were satisfying the inclusion criteria were included in the study.

Inclusion Criteria

All patients with tubercular lymphadenopathy above 1 years of age were included in the study.

Exclusion Criteria

All patients with age <1 year and patients diagnosed with HIV were excluded from the study.

Table 1: The clinical profile of patients

Clinical presentation	Frequency	Percentage
Swelling	87	87
Fever	43	43
Weight loss	9	9
Cough	11	11

Table 2: The history of tuberculosis

History	Frequency	Percentage
History of pulmonary TB	9	9
History of extrapulmonary TB	4	4
No history of tuberculosis	87	87
Total	100	100

Table 3: The side of lymph node involvement

Side of involvement	Frequency	Percentage
Right	37	37
Left	32	32
Bilateral	28	28
Total	100	100

Table 4: The USG findings of lymph nodes

USG findings	Frequency	Percentage
Necrotic maintaining hilum	31	31
Matted maintaining hilum	26	26
Matted without hilum	43	43
Total	100	100

Table 5: The mode of diagnosis

Mode of diagnosis	Frequency	Percentage
FNAC	81	81
EB	19	19
Total	100	100

The patients were diagnosed to have cervical tubercular lymphadenopathy based on history, clinical examination, and confirmed by either FNAC or EB with histopathological examination (when FNAC was inconclusive). All the demographic details were entered into Microsoft Excel and data were analyzed using Epi Info 7.2.1.0.

OBSERVATIONS AND RESULTS

Clinical Profile

Swelling was the presenting chief complaint in 87% of patients, with associated fever in 43% of patients. Weight loss and cough were reported in 9% and 11%, respectively as shown in Table 1 and Figure 1.

History of TB

About 87% of patients had no previous history of Koch's pathology, with only 4% of patients with previous history of extrapulmonary Koch's pathology. It has been represented in Tble 2 and Figure 2.

Side of Lymph Node Involvement

The right side was found to be a more common side of involvement than left. Bilateral involvement was found in 28% of patients as shown in Table 3 and Figure 3.

Number of lymph nodes involved: Multiple node involvement was seen in 66% of patients.

USG Findings of Lymph Nodes

Matted nodes were seen in 69% of patients, with 43% not maintaining hilum. None of the cases in the present

Table 6: The comparison of clinical features

Clinical feature	Present study	Jha <i>et al.</i> ^[16]
Swelling	87%	94.6%
Fever	43%	10.7%
Weight loss	9%	14.3%
Cough	11%	10.7%
Others	--	16% (sinus tracts)

Table 7: The comparison of lymph node characteristics

Lymph node characteristic	Present study	Salman <i>et al.</i> ^[17]
Fixed	--	--
Matted	69%	72%
Others	--	6% (sinus tracts)

Table 8: The history of pulmonary tuberculosis

History of pulmonary TB	Present study	Jha <i>et al.</i> ^[16]	Maharajan <i>et al.</i> ^[18]
Present	4%	26.66%	16.86%
Absent	94%	83.33%	83.14%

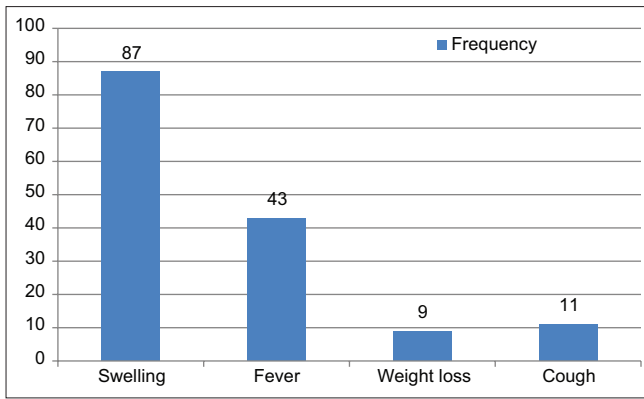


Figure 1: Clinical profile of patients

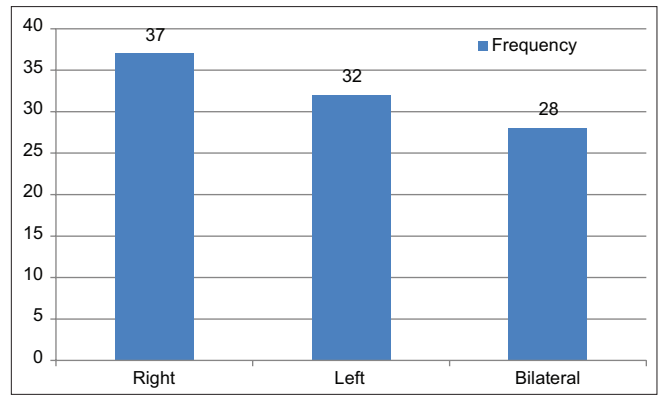


Figure 3: The side of lymph node involvement

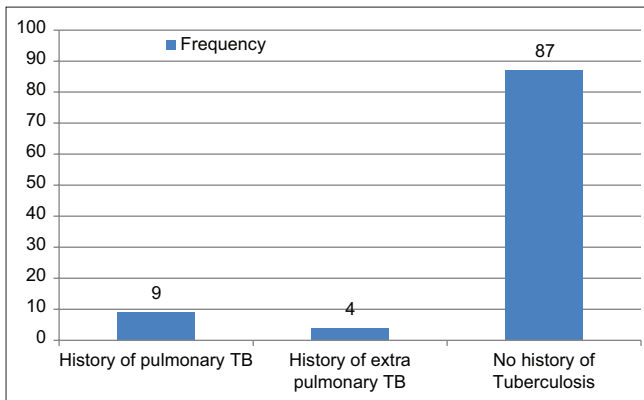


Figure 2: The history of tuberculosis

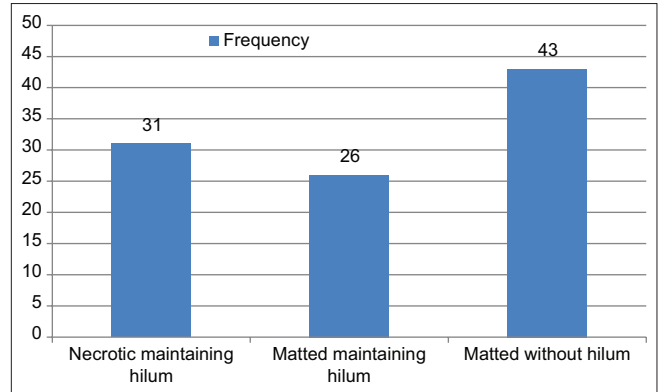


Figure 4: USG findings of lymph nodes

Table 9: The results of FNAC and excision biopsy in various studies

Mode of diagnosis	Present study	Muhammad and Bukhari ^[19]	Salman <i>et al.</i> ^[17]
FNAC	81%	69%	82%
Excision biopsy	100%	--	18%

study presented with sinuses as represented in Table 4 and Figure 4.

Diagnosis

Mode of diagnosis is represented in Table 5 and Figure 5. Nineteen patients with inconclusive FNAC reports were subjected to EB with HPE, of which 11 patients showed positivity with no rifampicin resistance noted.

DISCUSSION

TB is one of the major public health problems, being the ninth leading cause of death, contributing to 2 million deaths worldwide every year.^[9,10] EPTB contributes to the burden of the disease, with lymph node TB being the most common form of EPTB.^[11,12] TB lymphadenitis is seen

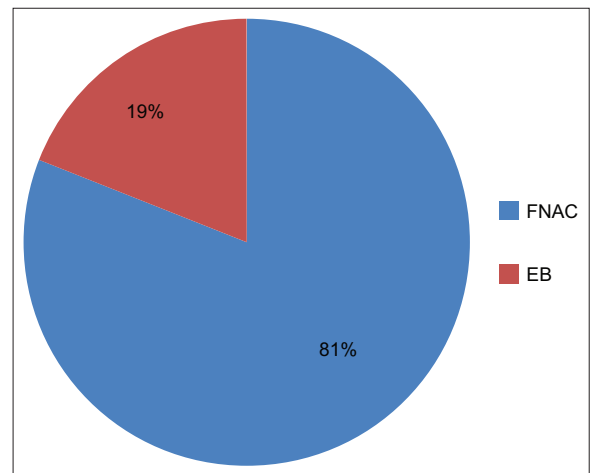


Figure 5: The mode of diagnosis

in nearly 35% of EPTB of which cervical LN region is the most common to get involved, seen in 60–90%. The incidence of TB is at an increase due to poor hygiene, poverty, and overcrowding.^[13] It has been reported that host risk factors for EPTB include younger age, female sex, and non-White race.^[14,15] One hundred cases of tuberculous cervical lymphadenopathy in this study are compared to other series in literature.

The most common symptom with which the patient presents to the hospital is neck swelling which is seen in 87% of cases. These results were compared with Jha *et al.* study, as shown in Table 6 which are almost similar to the present study which accounts for about 94.6% of cases presenting with swelling, but differ in presentation of fever, where almost half of the patients in the present series had complains of fever. Cough is due to the upper respiratory tract involvement and is not a specific feature of tuberculous adenitis, seen in nine patients.

The results of the present series are compared with those in Salman *et al.* study as shown in Table 7. None of the cases in the present study had fixed nodes or sinuses.

In the present series, 4% of cases had associated pulmonary TB which is about 16.86% in Maharajan *et al.* study and 26.66% in Jha *et al.* study as represented in Table 8.

In the present study, FNAC revealed caseating granuloma in 81% of cases compared to 69% in Muhammad and Bukhari series and 82% in Salman *et al.* study as mentioned in Table 9. FNAC showed inconclusive evidence in 19% of the cases in the present series. According to Salman *et al.* study, excision biopsy revealed caseating granuloma in 18% of the cases. After confirmation of diagnosis, patients were put on antitubercular drugs and were followed up. The cure rate was 100%. This result is similar to that of Jha *et al.* study and Maharajan *et al.* study.

CONCLUSION

Swelling was the most common form of presentation involving the right-sided lymph nodes with matting in 69%.

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