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Research Article

Role of Surgical Intervention in Treatment of Tubercular Lymphadenitis in Neck Region

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ABSTRACT:

INTRODUCTION - Lymphadenitis is the most common extrapulmonary manifestation of tuberculosis. It is important for otolaryngologists to be aware of TB in head and neck region and its various manifestations. Lymphadenopathy can progress to abscess and fistula formation, which can be disabling and socially unacceptable. ATT under dots is the main treatment while surgery is required for enlarged lymph nodes or tuberculous lymph node which does not regress with medication.

OBJECTIVE - This study aims to find the role of surgical excision of lymph nodes in treatment of tuberculosis of neck lymph node.

MATERIALS AND METHODS - Total 91 patients were diagnosed first time with tuberculosis of neck lymph node. All patients were started on anti tubercular treatment. Those patients who had been cured after completion of ATT cat-I, were followed up for 1 year. Surgical intervention (adjuvant to ATT cat-II) was done in patients who were not cured after ATT cat-1, or had relapse in 1 year follow up.

RESULTS - Surgical interventions were done in total 37 patients (25 treatment failure patients and 12 relapse patients). and all patients who got surgical interventions had no relapse or treatment failure during follow up.

CONCLUSION-In patients who are not cured with ATT alone, early surgical intervention reduce complications such as abscess, sinus, fistula formation, or spread of disease to other parts of body. Timely surgical intervention also reduce the morbidity and increase the quality of life of patients.

KEYWORDS- Tubercular lymphadenitis, Antitubercular treatment, surgical intervention

INTRODUCTION

Tuberculosis (TB) is a granulomatous inflammatory disease caused by mycobacterium tuberculosis. Lymphadenitis is the most common extrapulmonary manifestation of tuberculosis. Tuberculous lymphadenopathy commonly involves lymph nodes of the head and neck region (posterior and anterior cervical chains, supra scapular fossae, submandibular) in which cervical lymphadenopathy is most common.[1-3]

It is important for otolaryngologists to be aware of TB in head and neck region and its various manifestations. Tuberculous lymphadenopathy is not a life-threatening problem, but does require treatment by physicians and surgeons. The majority of patients tend to be young, healthy, working adults without constitutional symptoms. However, lymphadenopathy can progress to abscess and fistula formation, which can be disabling and socially unacceptable.[4] ATT under dots is the main treatment while surgery is required for enlarged lymph nodes or tuberculous lymph node which does not regress with medication.[5] Surgical techniques include aspiration, incision and drainage, curettage, complete surgical excision of the affected lymph nodes and overlying skin and selective nodal or functional neck dissection when required.[6]

OBJECTIVE-

This study aims to find the role of surgical excision of lymph nodes in treatment of tuberculosis of neck lymph node.

MATERIALS AND METHODS

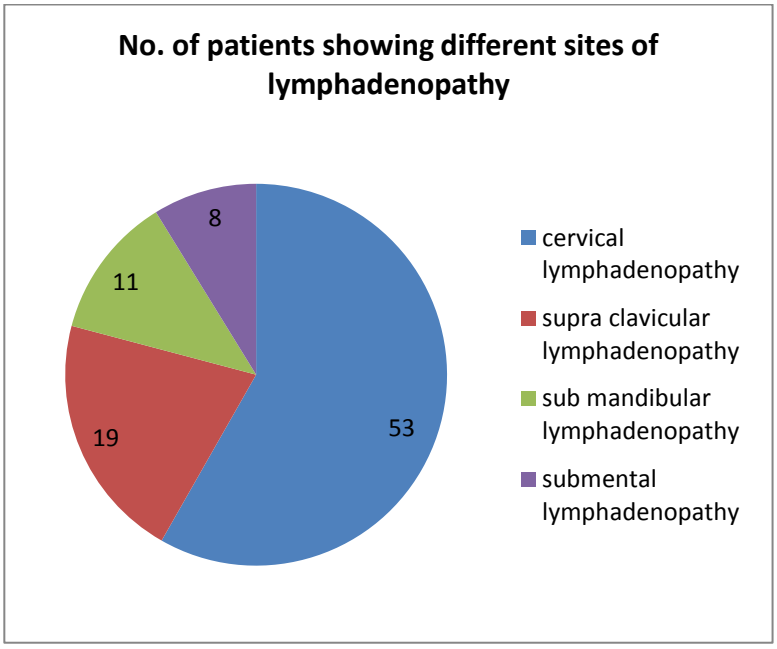
Study was conducted in department of ENT, SSMC Rewa. Total 91 patients who were diagnosed first time with tuberculosis of neck lymph node (cervical, supraclavicular, submandibular, submental lymph nodes etc) either microbiologically or by the presence of caseating necrotizing granulomatous inflammation in tissue biopsy or cytology, were included in our study. Information regarding age, sex, and site of involvement among patients under study was collected. All patients were started on anti tubercular treatment (ATT) cat-I, under revised national tuberculosis control program (RNTCP). After completion of ATT, response of ATT was noted. Those patients who had been cured after completion of ATT cat-I, were followed up for 1 year. Surgical intervention (adjuvant to ATT cat-II) was done in patients who were not cured after ATT cat-1, or had relapse in 1 year follow up. Response to surgical intervention (adjuvant to ATT) was noted during subsequent follow up of 8 months. All records of patients were assessed and analysed.

RESULTS

In our study, out of 91 patients 54 (59%) were females and 37(41%) were males. 14 patients (15%) were below 20 years, 24 patients (27%) were between 20 -30 years, 21 patients (23%) were between 31- 40 years, 20 patients (22%) were between 41-50 years, 12 patients (13%) were above 50 years in age. 53 patients (58%) had only cervical lymphadenopathy, 19 patients (21%) had supra clavicular lymphadenopathy, 11 patients (12%) had sub mandibular lymphadenopathy and 8 patients (9%) had submental lymphadenopathy.

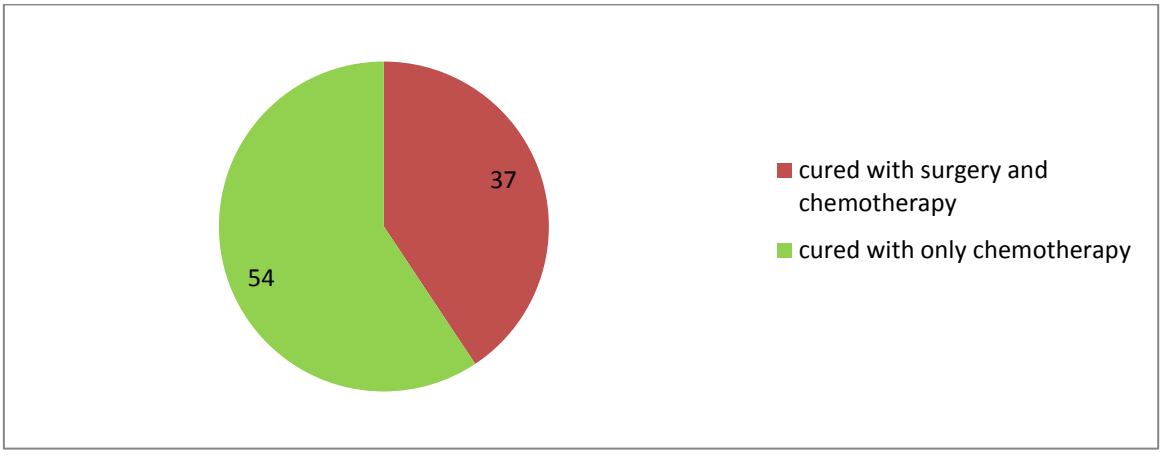
After completion of ATT cat-I out of total 91 patients 66 patients were cured, and 25 patients were not cured (treatment failure). Among the 25 patients who had not been cured after completion of ATT cat-I, 8 patients developed cold abscess without any sinus, 7 patients developed cold abscess with sinus, 3 patients got tubercular lymphadenopathy of other site of neck, 3 patients had lymph node positive for caseating necrotizing granuloma in cytology with no change in size, and the rest 4 patients showed similar cytology with increased size of lymph node. Out of 66 cured patients 12 had relapse during follow up.

Demographic factors	No. of patients
Sex	
Male	37
Female	54
Age groups	
below 20 years	14
20 -30 years	24
31- 40 years	21
41-50 years	20
above 50 years	12



Surgical interventions were done in total 37 patients, 25 treatment failure patients and 12 relapse patients and all these patients had no relapse or treatment failure during further follow up.

NO. OF PATIENTS CURED BY CHEMOTHERAPY OR COMBINATION OF SURGERY WITH CHEMOTHERAPY



DISCUSSION

In our study out of total 91 patients 54 patients were completely cured by ATT alone and did not required any surgical interventions, 12 patients who were cured by ATT had relapse and required surgical interventions. Surgical interventions were done in total 37 patients (25 treatment failure patients and 12 relapse patients) and all these patients were completely cured without relapse or treatment failure during follow up. Similar findings were reported in other studies. A study by Kanjanopas K et al[7] found 100 % cure rate after complete surgical excision of the node before receiving a full course of medication. All 34 cases treated with modified neck dissection before a full course of medication were cure.

Another study conducted by K. F. Sui et al[8] reported 100 % cure rate after excision of all grossly involved lymph node. In a study by Subrahmanyam M 35 patients treated with surgery and chemotherapy, 29 patients were completely cured, and out of 70 patients who had treated only with chemotherapy 52 patients were completely cured.

In our study, among the 25 patients who had not been cured after completion of ATT cat-I, 8 patients developed cold abscess without any sinus, 7 patients developed cold abscess with sinus, 3 patients got tubercular lymphadenopathy of other site of neck, 3 patients had lymph node positive for caseating necrotizing granuloma in cytology with no change in size, and the rest 4 patients showed similar cytology with increased size of lymph node. Out of 66 cured patients 12 had relapse during follow up. In study by Kanjanopas K et al[7], six of the 14 who were treated with drug therapy alone had problems: 2 progressed to abscess formation and 4 had residual enlargement of their lymph nodes that required surgery. Of the 47 cases with multiple cervical lymph nodes ≥3 cm in diameter, 13 were treated with medication alone; 9 (69%) did well and 4 developed an abscess and had residual lymphadenopathy.

Similar to other studies, our study has also reported that combination of surgical intervention with anti tubercular chemotherapy showed better outcome compared to chemotherapy alone.

CONCLUSION

Antitubercular treatment is main treatment for tubercular lymphadenitis but in those patients who got relapse or failure to antitubercular treatment require surgical interventions. Early surgical intervention in these patients reduce complications such as abscess, sinus, fistula formation, or spread of disease to other parts of body. Timely surgical intervention also reduce the morbidity and increase the quality of life of patients.

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