IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 15, Issue 12 Ver. X (December. 2016), PP 44-47
www.iosrjournals.org

Role of Surgical Excision in Persistant Koch's Cervical Lymphadenitis

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Abstract: *The study of enlargement of lymphnodes has always been fascinating. Its causes, presentation, and nature of occurrence has always been the area of research interest. Even in amidst of modern investigations, the clinical evaluation of lymphnode swelling still remains the corner stone.Amongst the lymphnode swellings in the neck, koch's lesion amounts to be the major etiological factor of presentation.Of the 20 patients who underwent surgical excision of lymph nodes, 12 were cured. Among the 8 patients who were not cured, 2 developed recurrences, 2 Developed sinuses and 4 showed emergence of new lymph nodes due to co-morbid conditions like poor nutrition, diabetes mellitus and immunocompromised. Among the 20 patients who were administered cat II ATT, 9 were not cured, 2 had persistent lymphadenitis. 4 developed cold abscess. 3developed discharging sinuses due to poor response to chemotherapy alone. So they need for excision of neck node for disease free status. It was concluded in this study that, surgical excision of involved cervical lymphnodes might be a better option than chemotherapy alone.*

Keywords: *ATT, Cervical lymphadenitis, Koch's lesion, lymphnodes, Tuberculosis*

I. Introduction

The head and neck region remains part of intricate anatomical region with its structures carrying out highly complex and important physiological functions. Study of diseases in this complex region has always remained interesting especially the study of enlargement of lymphnodes. Its causes, presentation, and nature of occurrence is a fascinating work and involved not only the interest of the surgeon but also of other specialities. Inspite of the special interest shown in the assessmentof the lymphnode swelling by various specialities, Clinical evaluation of lymphnode swelling remains the corner stone for correct assessment of the disease pattern.

Surprisingly there are about 800 lymphnodes in our body and about 300 nodes are present in the head and neck region. Enlargement of lymphnodes occur in a variety of conditions ranging from simple reactive hyperplasia, secondary to infection in the draining area, to evidence of secondary malignant deposits and sometimes even malignancy occurring in lymphnodes itself.

Amongst the lymphnode swellings in the neck, koch's lesion amounts to be the major etiological factor of presentation Apart from evolving the diagnosis of the disease, in treatment part mere anti tuberculosistherapy alone is not sufficient to cure the disease. Our study shows the importance and the definite measures of absolute cure rate and disease free status obtained bysurgical excision.

II. Aims Of The Study

1. To evaluate the role of surgical excision in persistant Koch's cervicalLymphadenitis

2. To emphasize importance of surgical excision as a curative role in persistantKoch's cervical lymphadenitis compared to CAT II ATT alone.

III. Materials And Methods

Study population:

Adult patients with persistent koch's cervical adenitis after treatment with ATT category III attending the general surgery out patient and TB out patient department in Coimbatore medical college hospital were chosen for study

Sample Size: 40
Study Period: 2 years (2008 to 2010)
Study Design: analytical study
Parameter Analysed:
Patients with persistent koch's cervical adenitis after treatment with ATT category III were

split into two study populations comprising 20 patients each :
(a) one population was subjected to surgical excision oflymph nodes.
(b) Second population was subjected to category II ATT

These patients were followed up for a period of 1 year. During the course of 1 year,patients in study population were categorized
As (i) cured (i.e. With no recurrence or complications)
or (**ii)** not cured (i.e. With recurrence or complications like sinus or fistula).

Patients in study population (b) were categorized as cured (i.e.nodesdisappeared) or not cured (i.e. nodes persistent). These two populations wereanalysed and subjected to a test of significance which tested whether surgicalexcision was superior to cat II ATT.

Study protocol: All adult patients attending surgery in CMCH from all 6units with chronic cervical lymphadenitis (duration > 3 months) were subjected toFNAC, if FNAC revealed koch's adenitis, the seriousness of the illness wasanalysed . If the general condition was found to be good, they were included in thestudy.The rest were excluded.

These patients were subjected to sputum microscopyfor acid fast bacillus and to a chest radiograph. If either revealedPulmonary Tuberculosis, these patients were excluded from the study. The restwere referred to the department of Tuberculosis in CMCH where they wereadministered cat III ATT for 6 months. The nodal status was assessed forpersistence or disappearance.If the nodes disappeared, these patients wereexcluded from the study . The rest were subjected to either surgical excision oflymph nodes or category II ATT and analysed.

Patient Developing Sinus After Node Excision
Figure 1

Surgical excision of the lymph nodes was carried out on 20 patientsafter getting informed written consent for surgery and anaesthesia as well as aseparate consent form for inclusion in the study. Surgery was performed undergeneral anaesthesia under due supervision.Enlarged cervical lymph nodes were excised and sent for HPE which revealedcaseating granuloma in all cases. Patients were discharged on the 5^{th}postoperativedayafter assessing the presence of complications . Sutures were removed on 7^{th}postoperative day. These patients were followed up for a period of 1 year.
20 patients were administered cat II ATT and followed up for aperiod of 1 year .

Inclusion criteria:
(1) Adult patients with Koch's adenitis > 3 months

Exclusion criteria:
1. Non- Koch's chronic cervical lymphodenitis
2. Seriously ill Koch's cervical adenitis
3. Koch's cervical adenitis with features of pulmonary tuberculosis
4. Cured Koch's cervical adenitis after treatment with cat III ATT for 6 months.

Limitations of the study

Follow-up was the major limiting factor. For effectivefollow-up, each patient was contacted either through mobile phone or postal address.

IV. Observations

Observations:

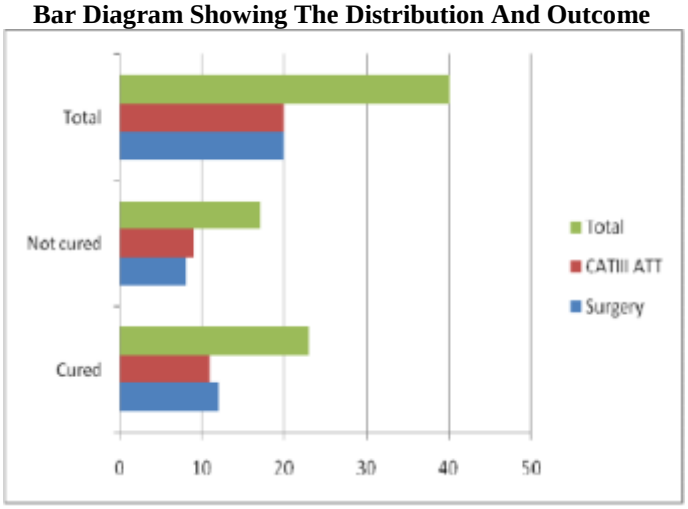
Table 1

Procedure	Cured	not cured	Total
Surgical excision	12	8	20

Table 2

Procedure	Cured	not cured	Total
Surgical excision	11	9	20

Bar Diagram Showing The Distribution And Outcome



V. Discussion

The surgery in koch's cervical lymphadenitis is not advisable as afirst line of management. 40 adult patients OPD in CMCH from unit 1 to 6 fromthe year 2008 to 2010, with features of persistent Koch's cervical lymphadenitisafter ATT administration were analysed. They were classified into the populations(each with 20 patients) on random basis. One population was subjected to asurgical excision and another tocategory II ATT. They were followed-up for a period of one year.Complications wereanalysed during and after the period of 1 year. Of the 20patients who underwentsurgical excision of lymph nodes, 12 were cured. Amongthe 8 patients who were not cured, 2 developed recurrences, 2 Developed sinusesand 4 showed emergenceof new lymph nodes due to co-morbid conditions likepoor nutrition, diabetes mellitus and immunocompromised. Among the 20 patientswho were administered cat II ATT, 9were not cured, 2 had persistentlymphadenitis. 4 developed cold abscess. 3developed discharging sinuses due topoor response to chemotherapy alone. So they need for excision of neck node fordisease free status.

These results were subjected to a chi square test ofsignificance,based on a 2x2 table with degree of freedom 4. Null Hypothesis wasassured that there was no significant difference between surgical excision and catII ATT. Alternate Hypothesis was assured that surgical excision of lymph nodeswas superior to cat II ATT. At the end of the test of significance, It was hypothesizedthat there was no significant difference between surgical excision and cat II ATT($p<0.05$).

VI. Conclusion

Cervical nodal TB is a common entity. The primary mode of management is theadminister either cat I ATT or cat III ATT depending on whether the patients areseriously ill or not respectively. Treatment failure with either of these puts thepatients in cat II ATT. The role of surgical excision of persistantkoch's cervicallymphadenitis even after ATT had been emphasized, as this only gives total cure tothe disease. Eradication of residual Koch's lesion is achieved only in surgicalmanagement , apart from providing the cosmetic effect in patient with persistantkoch's cervical lymphadenitis even after ATT. Patient need not to be in prolongedand different categories of ATT. Hence, surgical excision of involved cervicallymphnodes might be a better option than chemotherapy alone.

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