Chapter – 7

Summary / Key Observations
1. Extra pulmonary tuberculosis especially involving cervical group of lymph nodes was the commonest presentation.

2. Total of 347 enlarged lymph nodes were enrolled in to the study, of them 147 were excluded from study based on the current guidelines of RNTCP in diagnosing tuberculous lymphadenitis.

3. Of the 200 lymph node specimens, 179 were from cervical region and 21 were from axillary region.

4. The clinical features of lymph nodes were Matting-122; Discrete=78; Abscess – 12; Sinus-22; Multiple nodes-62. Lymph node sizes varied from 0.5x 0.5x to 6x5 cms.

5. Tuberculous lymphadenitis was more observed in the age group of 21-30 years. Overall the prevalence of the disease was more observed in the females than males.

6. Clinically majority of the patients are without any symptoms of fever or weight loss. There was 166 patients who had first time lymph node swelling and did not have any history of TB or TB contacts, and 22 had a history of TB treatment. In only few cases there is remarkable rise in their ESR (Erythrocyte
sedimentation rate). There were 28 patients with HIV co-infection, and majority of them are in the age group of 21-30 years.

7. Aspiration of the lymph node was carried according WHO recommended precautions. Sampling and sampling aspiration technique were used wherever necessary. The gross appearances of the aspirates was – 61, blood mixed, 66 cheesy material and 73 were purulent.

8. All the aspirates were subjected for the 3 different diagnostic tests via- H & E staining, ZN staining and culture for mycobacteria isolation, after making an adequate smears the syringe were rinsed with 0.5 ml of sterile distilled water the materials were comfortably used for the culture by both the LJ and MB Bact. By applying this all the samples were uniformly subjected for all the tests.

9. Of 200 lymph node aspirates, 89% of them were proven positive by one or either of the laboratory tests. Diagnosis of tuberculous lymphadenitis by H & E was 80.5% while 53.5% were proven positive by bacteriological test.
10. The results of the present study revealed four types of pathology in the lymphadenitis cases by FNAC. The comparison of the cytodiagnosis supplemented with ZN smear and mycobacterial culture were substantially high, which meant effective and definitive diagnosis of tuberculous lymphadenitis by fine needle aspirates in lymphadenitis.

11. Findings from the present study emphasize a definite need for a combination of tests for diagnosing LNTB. Though, it is not widely practiced, culture of FNA may be an additional and more specific tool. It is therefore suggested that bacteriological examination including mycobacterial culture may be considered wherever possible for diagnosing LNTB in RNTCP set up. FNA culture facility should be made available at least in a few referral centers to help in more accurate diagnosis in problem cases.

12. A total of 76 isolates of mycobacteria were obtained from 200 lymph node aspirates suspected of tuberculosis, 74 of which were *Mycobacterium tuberculosis*, one was *Mycobacterium fortuitum* and one *Mycobacterium kansasii*. These results highlight the importance of NTM in HIV negative patients as a
case of lymphadenitis, and indicate that NTM as potential pathogens from lymph node sites. Further studies on a larger scale are needed to define the clinical relevance of this observation particularly in HIV positive and negative subjects.

13. Drug resistance in pulmonary tuberculosis is well documented. Observations from this study indicate the presence of drug resistance in lymph node tuberculosis, such as any resistance was found 28.3% (21/74) and multi drug resistance was 6.7% (5/74).

14. There is limited published information on mycobacterial species causing lymph node tuberculosis and their drug resistance profile from India. The results from the present study emphasize the necessity of more community based studies to be taken up in this area, to further confirm the findings.