# TUBERCULOUS LYMPHADENITIS IN AFGHAN REFUGEES

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**Background:** Tuberculosis is a disease of poor countries. The war-stricken Afghan refugees, owing to abject poverty, illiteracy, lack of social awareness and poor hygienic conditions, are highly susceptible to tuberculosis. This study was conducted to assess the frequency of peripheral lymph node tuberculosis in Afghan refugees. **Methods:** One thousand lymph node biopsies from Afghan refugees were examined histopathologically. The diagnosis was undertaken on morphological grounds. Lymph nodes containing caseating epithelioid cell granulomas were identified as tuberculous. Age and sex of the patient and site of biopsy were also recorded. **Results:** Sixty nine percent of the nodes revealed tuberculosis. Male: Female ratio was 1:1.2. Of all the cases 72% cases were 10–30 years of age. The most common site involved was neck that was involved in 79% of cases. **Conclusions:** Tuberculous lymphadenitis has an alarmingly high prevalence in Afghan refugees of NWFP.

## INTRODUCTION

Tuberculosis is a worldwide disease, infecting one third of the world's population and killing 3 million people each year[1]. Except for the recent slight increase in the incidence of tuberculosis in the western nations due to AIDS[2,] tuberculosis is generally a disease of poor countries. It has a high prevalence in Asia and Africa, particularly in countries with low socioeconomic conditions[3,4,5]. It occurs in all age groups and nearly any organ can be involved.

The war-stricken Afghan refugees, owing to abject poverty, illiteracy, lack of social awareness and poor hygienic conditions, are highly susceptible to tuberculosis. The problem has further been aggravated by lack of health facilities available to them, particularly due to the recent neglect of their medical care by foreign aid agencies.

The present study was conducted to assess the frequency of peripheral lymph node tuberculosis in Afghan refugees.

## PATIENTS AND METHODS

In the study, 1000 lymph node biopsies submitted to Abasin Clinical Laboratory Peshawar in the years 1999–2000 were studied. The biopsies were taken in Mercy hospital for Afghan refugees Peshawar. Age, sex and site of biopsy were also recorded. Mesenteric lymph nodes were excluded from the study. The lymph nodes were preserved in 10% formalin, processed in routine manner and embedded in paraffin wax. Three-micron thick sections were cut and stained by Haematoxylon and eosin[6]. The diagnosis was undertaken on morphological grounds. Lymph nodes containing caseating epithelioid cell granulomas were identified as tuberculous.

## RESULTS

Out of all our cases, 90.6% comprised of non-neoplastic conditions. Tuberculosis was the most common condition noted and accounted for 69% of all and 76% of the non-neoplastic cases. Non-Hodgkin's lymphoma was the dominant neoplastic condition.

**Table-1: Sex Distribution**

| Sex | Number of Cases | Percentage |
|---|---|---|
| MALE | 449 | 44.9 |
| FEMALE | 551 | 55.1 |

**Table-2: Age Distribution**

| Age | Number of Cases | Percentage |
|---|---|---|
| Below 10 Years | 58 | 5.8 |
| 10-30 Years | 719 | 71.9 |
| 31-50 Years | 161 | 16.1 |
| Above 50 Years | 62 | 6.2 |

**Table-3: Site Distribution**

| Site | Number of cases | Percentage |
|---|---|---|
| Neck | 719 | 71.9 |
| Submandibular | 55 | 5.5 |
| Axilla | 175 | 17.5 |
| Inguinal | 51 | 5.1 |

**Table-4: Broad Categories of Conditions**

| Category | Number of cases | Percentage |
|---|---|---|
| Non-neoplastic | 906 | 90.6 |
| Neoplastic | 94 | 9.4 |

**Table-5: Disease pattern**

| Condition | Number of cases | Percentage |
|---|---|---|
| Tuberculosis | 690 | 69. |
| Reactive change | 178 | 17.8 |
| Non-Hodgkin's lymphoma | 34 | 3.4 |
| Hodgkin's lymphoma | 31 | 3.1 |
| Metastatic carcinoma | 29 | 1.9 |
| Miscellaneous non-neoplastic conditions | 38 | 4.8 |

Of all the cases, 72% were from 10–30 years of age. Male/female ratio was 1:1.2 with a slight female preponderance. The most common site involved was neck which, along with submandibular region, consisted of 79% of cases.

## DISCUSSION

Lymph node was selected for two reasons:

1. Because peripheral lymph node is easy to obtain for histopathological examination.
2. Because by just taking a biopsy, a patient even in a remote area can be diagnosed for tuberculosis.

Tuberculosis is one of the most common diseases of peripheral lymph nodes. Despite of improvement in the living standard in general, significant reduction in the incidence of tuberculosis in Asian and African population has not occurred correspondingly[7].

So far, no statistics are available regarding the incidence of tuberculosis in general and tuberculous lymphadenitis in particular in Afghan refugees. In this study, nearly 91% of the lymph nodes revealed non-neoplastic lesions whereas only about 9% showed neoplastic conditions. Tuberculosis constituted 69% of all the cases and 76 % of the benign conditions. Some previous studies revealed high prevalence of tuberculous lymphadenitis in countries like Pakistan, India and Bangladesh[4,3,7]. Study by Danpat *et al*[3] revealed tuberculosis in 51% of cases. In our study, this percentage is 69 % which is significantly higher then these studies thus revealing an alarming situation regarding prevalence of tuberculosis in Afghan refugees. This could be due to a high degree of exposure of Afghan refugees to various factors predisposing to tuberculosis. The factors which are possible in these cases are overcrowded habitation and poor nutrition. This also indicates likelihood of open cases in the refugee population. More studies are needed in this regard.

Most of our patients were in the second and third decades of life and we also noted slight female preponderance, as reported by others[7,8,9]. Relatively higher female preponderance could be that in a male dominated society like that of Afghans, the socioeconomic status of woman is even more pathetic. It is a common practice in afghan society that females take their meals after the males have finished. This could lead to relatively more malnutrition in females as compared to males. Also, females in their 2nd and 3rd decades are more conscious to their appearance with relatively higher self-detection rate of the affected lymph nodes.

The dominance of cervical lymph nodes in tuberculosis has also been reported by Others[7,10,11,12]. Our percentages corresponds to that reported by Danpat *et al*[3].

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