

PRESENTATION AND AETIOLOGICAL ASPECTS OF CERVICAL LYMPHADENOPATHY AT JINNAH MEDICAL COLLEGE HOSPITAL KORANGI, KARACHI

MUHAMMAD FAROOQ UMER, SYED HUSSAIN MEHDI, ABDULLAH-EL-MUTTAQI
S. ASHRAF HUSSAIN

Department of Surgery, Jinnah Medical College Hospital, Karachi

ABSTRACT

Objective: To evaluate the presentation and etiology of Cervical Lymph adenopathy at JMCH

Study Design: Descriptive study.

Setting & Duration: Department of Surgery Jinnah Medical College Hospital from October 2005 to September 2008.

Methodology: A total of 85 patients who presented with cervical lymph adenitis, were included in this study. Excision biopsy was performed under local and general anesthesia according to the age of patients.

Result: The most common pathology found was tuberculous cervical lymph adenitis (75.5% of patients). Non specific cervical lymph adenitis was found in 15.3% of cases. Remaining were Lymphoma patients.

Conclusion: Tuberculous lymph adenitis is the most common pathology without systemic signs in a number of patients.

KEY WORDS: Cervical Lymphadenopathy, Lymphoma, Tuberculosis

INTRODUCTION

Lymph nodes form an important part of body's immune mechanism. Cervical lymphadenopathy can be a presenting feature in a number of disorders both, inflammatory or neo plastic.¹ In majority of the cases, cervical lymph adenopathy is of benign inflammatory nature.² In developing countries, tuberculosis is amongst the most common causes of sub acute or chronic cervical lymph adenopathy.³ Tuberculosis is one of the commonest causes of peripheral lymph adenopathy in most countries of Asia and Africa with varying frequency of 43%-56%.⁴ Tuberculous Lymph adenitis occurred pre dominantly in foreign born individuals a mean of 5 years after arrival in US.⁵ Cervical Lymph adenopathy is usually defined as Cervical Lymph Nodal tissue measuring

more than 1cm in diameter.⁶ This common surgical problem is frequently seen in surgical out patient department. The various etiological aspects are seen all over the world.⁷ For differential diagnosis it is important to look at cervical lymph adenopathy in context of other clinical features such as age of the patient, sex, involvement of other group of lymph nodes and presence of systemic signs. To confirm the histopathological diagnosis, the excision biopsy should be performed on the largest and firmest node that is palpable, and the node should be removed intact with capsule.⁸

METHODOLOGY

The study was conducted in the Department of Surgery, Jinnah Medical College Hospital, Korangi Karachi. The period of the study extended up to three years, from October 2005 to September 2008. This was a descriptive type of study. All cases of cervical lymph adenopathy that attended Out Patient Department were included. No rigid criteria for age, sex or race were laid down. A detailed history and physical examination were done. Examination of Lymph Nodes included site, number, whether matted or discrete, presence of tenderness, mobility, consistency and fluctuation. Baseline investigations included complete blood count and ESR,

Correspondence:

*Dr. Muhammad Farooq Umer, Associate Professor,
Dept. of Surgery, Jinnah Medical College Hospital,
SR-6, Sector 7-A, Korangi Industrial Area, Karachi.
Phones: 0300-8267589.
E-mail: drmfu@hotmail.com*

Mantoux test and Chest X-Ray. Excision biopsy was carried out in every case, and diagnosis of tuberculosis was confirmed by demonstration of epithelioid granulomas with caseation necrosis on histopathological examination.

RESULTS

This study comprised of total 85 patients including 63 female and 22 male patients. The maximum patients were of 21 to 30 year of age followed by 11 to 20 years. The youngest patient was 13 years and the oldest was 67 years of age.

Duration of cervical swelling ranges from minimum 3 weeks to more than 14 months. Thirty one patients (36.5%) presented between two to three months after appearance of swelling. Sixteen patients (18.8%) consulted within one month of first symptom.

Seventy two patients (84.7%) presented with multiple cervical nodes and in 70% of these they were matted together. Thirteen patients (15.3%) had single swelling. In 14% of the cases there was lymph adenopathy of other regions as well. Six patients (7.05%) axillary, 4 patients (4.70%) axillary and inguinal and 2 patients (2.35%) inguinal only.

All patients in our study of cervical lymph adenopathy presented along with weight loss (71.7%), fever (29.4%), and pain (15.2%). Only 22.4% patients presented with swelling only.

Thirty Six patients (55.4%) who were diagnosed as tuberculous cervical lymphadenitis and two patients (100%) of secondary metastasis had low hemoglobin. ESR was raised in 47.7% of T.B cases, and (100%) secondary metastatic nodes patients. Chest X-Ray was conclusive in 20% cases of tuberculosis.

Excision biopsy was performed in all present study cases. Histopathology revealed that 65(76.5%) had tuberculosis, 13(15.3%) turned out nonspecific lymph adenopathy and 3(3.3%) cases were lymphoma. Two cases (2.4%) were diagnosed to have metastatic carcinoma. Two cases (2.4%) proved acute lymphadenitis.

DISCUSSION

Tuberculosis is seen in almost every possible form in our surgical clinics. Peripheral lymph adenopathy is considered as the commonest form of extra pulmonary tuberculosis.⁹ The exact prevalence of extra pulmonary tuberculosis in Pakistan is unknown, although based on data published from other developing countries; it

is likely that a significant proportion of TB cases are extra pulmonary.¹⁰⁻¹¹ Some previous studies revealed high prevalence of tuberculous Lymph adenitis in Pakistan, India and Bangladesh.¹² Study by Daupat revealed tuberculosis in 51% of cases. In this study, 55.4% cases proved tuberculosis which is in accordance with these studies. The incidence is lower than the percentage of 69% of cases seen in a local study.¹³ Cervical lymph adenopathy is a common clinical presentation at JMCH Surgical Clinics. It is very well ascertained that in cases with cervical lymph adenopathy, diagnosis in majority of cases proved to be tuberculosis in this part of the world. This is supported by various studies that were carried out in Pakistan.¹⁴ The presentation is in the form of solitary or multiple lymph node enlargements, which are usually matted together. In 80% of the cases, the process of tuberculosis is limited to the clinically affected lymph nodes, but a primary focus in the lung must always be suspected and investigated. Nonspecific lymph adenitis was found in 15.3% cases with similar results found in other studies.¹⁵ 3.5% cases were diagnosed as lymphoma Hodgkin's Lymphoma in this study, which is lower than a local study.¹⁶ Two (2.2%) cases of metastatic carcinoma were found, which less than the other studies done elsewhere.¹⁷ The primary focus was found in nasopharynx, stomach and testis.

CONCLUSION

Cervical lymph adenopathy is a common clinical problem that we come across. Majority of the patients turned out to have tuberculous lymph adenitis. The detailed clinical examination and baseline investigations, supplemented by excision biopsy for histopathology is enough to diagnose the etiology of cervical lymph adenopathy. Preventive measures, like maintaining good hygiene, education of patients and families can promote early detection. Prompt diagnosis and specific therapy can yield much better results.

REFERENCES

1. Gospodarowicz M K, Soug J Y, Cheong H J, Kee S Y, Lee J, Sohn J W, Kim M J. Disease spectrum of cervical lymphadenitis, analysis based on ultrasound guided core-needle biopsy. *Journ infect* 2007; 55: 310-316.
2. Leung A K, Robson W L. Childhood cervical lymphadenopathy. *Journ Pediatr Health Care* 2004; 18: 3-7.
3. Moore S W, Schenider J W, Schaef H S. Diagnostic aspects of cervical lymphadenopathy in children in the developing world: a study of 1877 surgical

- specimens. *Pediatr Surg Int* 2003; 19: 240-244.
4. Narang P, Narang R, Narang R. Prevalence of tuberculosis lymph adenitis in children in Wardha District, Maharashtra State, India. *Int Journ Tuberc Lung Dis* 2005; 9: 188.
 5. Polersky, Andrea M D, PhD; grove, William MD; Bhatia, Gulshan MRCP (UK) peripheral tuberculous lymphadenitis: Epidemiology, Diagnosis, Treatment and outcome. *Lippincott William and Wikins. Medicine* 2005; 84(6): 350-362.
 6. Twist C J Link M P. Assessment of lymphadenopathy in children. *Pediatrics clinics of North America* 2000; 49: 1009-1025.
 7. Thompson M M, Underwood M J, Sayers K D peripheral tuberculous lymphadenopathy. A review of 67 cases. *Br Journ Surg* 1992; 79(8): 763-4.
 8. Majid A. Prevalence of tuberculosis in cervical lymphadenopathy. *The professional* 1996; 3: 223-227.
 9. Hooper A A. tuberculous peripheral lymphadenitis *Br Journ Surg* 1972; 59: 353-359.
 10. Abdullah P, Mubarak A, Zahir N. The importance of lymph node biopsy in diagnosis of lymphadenopathy *JCPSP* 2000; 10(8): 298-30.
 11. Danpat M C, Mighra B M, Dash S P, Kar P K. Peripheral lymph node tuberculosis a review of 80 cases. *Bs Journ Sur* 1990; 77: 911-212.
 12. Hemalatha K, Grace K, Kulkarni G, Job C L. Tuberculous lymphadenitis in south India - a histopathologic study. *Tubercule* 1972; 53: 215-20.
 13. Ahmed I. Primary Lymphadenopathy; presentation and evaluation. *Specialist* 1992; 8: 13-20.
 14. Sheikh G M, Samad A. Pattern of tuberculous lymphadenitis. *The Isra University Hospital Experience JLUMHS* 2005; 305.
 15. Slap G B, Brooks J S, Schwartz J S. When to perform biopsies of enlarged peripheral lymph nodes in young patients. *JAMA* 1984; 252: 1321-26.
 16. Memon W, Samad A, Sheikh G M. Hodgkins Lymphoma in cervical lymph adenopathy. *Pak Journ Med Sci* 2008; 24(1): 118-121.
 17. Bazemore A W, Smucker D R. Lymphadenopathy and malignancy *Am Fam Physician* 2002; 66: 2103-2110.