



TO DETERMINE FREQUENCY OF EPTB AND THEIR SITES AT CIVIL HOSPITAL KARACHI (CHK) AND DOW UNIVERSITY HOSPITAL KARACHI.

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INTRODUCTION:

Tuberculosis is the seventh leading cause of death globally. In a recent WHO report, in Pakistan the incidence of TB is 275/100,000, prevalence is 342/100,000 and mortality is 56/100,000.¹ Pakistan is ranked at fourth out of ten top countries with highest incidence of TB.¹ Although pulmonary TB is the most common presentation of TB disease, it can involve any organ in the body.² Extra pulmonary Tuberculosis (EPTB) is defined as the isolated occurrence of TB in any part of the body other than lung. Mycobacteria may spread to any organ of the body through lymphatic or haematogenous dissemination and lie dormant for years at a particular site before causing disease.³ The proportion of EPTB among all TB cases varies from country to country. Almost one-fifth of United States tuberculosis cases are extra pulmonary. In Israel EPTB incidence is 19.6% of total patients of TB.⁴ EPTB increases from 15.7% of tuberculosis cases in 1993 to 21.0% in 2006.⁵ In Pakistan, WHO estimates that 34,000 (15%) of newly reported cases in 2007 were extra-pulmonary.¹

EPTB has an insidious and silent onset without any constitutional symptoms, and microbiological confirmation is usually not found.⁶ Biochemical tests to differentiate between pulmonary TB (PTB) from EPTB have not been very successful. There has been several studies on levels of interferon-gamma, chemokine ligand 9, mannose-binding lectin (MBL), tumor marker Ca-125 and adenosine deaminase in PTB & EPTB. Except for the levels of MBL, that are significantly higher in EPTB, none has shown any significant difference in their levels.⁷

Although much data is available for PTB but there is very scanty data on EPTB from Pakistan. There is a need to determine the extent of EPTB and its presentations from our region. This study was designed to determine the frequency of EPTB and its involved sites in patients presenting at tertiary care hospital. This will help understand and will also create awareness of extent of this problem in our area and will also help in early and effective treatment of such patients.

METHOD:

This retrospective study was carried out at CHK and Dow University Hospital. Data was retrieved from December 2012 to March 2014. Retrieved data was transferred to study proforma.

All patients from age 13 years and above were included. The demographic variables like age, gender and site of EPTB were recorded. Mean age \pm SD was calculated and compared on basis of gender and site of EPTB using Student's t-test. Frequencies of EPTB according to their sites were estimated and compared using χ^2 test. Data was analyzed through SPSS version 22 and significance was set at <0.05 .

RESULT:

Overall 157 patient data were recorded, out of which 100 (63.7 %) were females and 57 (36.3%) were males. The age range is between 13 to 88 years of age, majority of which were between 30-36 years of age.

According to our study most common site is cervical lymph node (n=41: 26.1%) followed by pleural effusion (n=22; 14%) intestinal (n=21; 13.4%) , meninges(n=19 ; 12.1%), milliary (n=16; 10.2%), spine (n=9: 5.7%), brain(n=8: 5.1%), axillary lymph node (n=7: 4.5%), joint (n=3 : 1.9%) ,supraclavicular and breast (n=2: 1.3%) each, pericardium, genito urinary, submental lymph nodes, skin, bone, submandibular lymph node , hilar lymph node (n=1 :0.6%) each.

This study shows that the most prevalent site is cervical lymph nodes in which female frequency is 30% and male frequency is 19.3%. (Table I)

In our study, (n=17) 10.8% of patients were found diabetic. (Table II)

TABLE I: Frequency of Extrapulmonary Tuberculosis

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TB Site		Gender		
		Male	Female	
Brain	Count	6	2	
	% within TB Site	75.0%	25.0%	
Meninges	Count	6	13	
	% within TB Site	31.6%	68.4%	
Spine	Count	3	6	
	% within TB Site	33.3%	66.7%	
Cervical LN	Count	11	30	
	% within TB Site	26.8%	73.2%	
Axillary LN	Count	1	6	
	% within TB Site	14.3%	85.7%	
Pleural Effusion	Count	9	13	
	% within TB Site	40.9%	59.1%	
Milliary	Count	9	7	
	% within TB Site	56.3%	43.8%	
Joint	Count	1	2	
	% within TB Site	33.3%	66.7%	
Intestinal	Count	10	11	
	% within TB Site	47.6%	52.4%	
sub-mental LN	Count	0	1	
	% within TB Site	0.0%	100.0%	
genitourinary	Count	0	1	
	% within TB Site	0.0%	100.0%	
supra clavicular	Count	1	1	
	% within TB Site	50.0%	50.0%	
pericardium	Count	0	1	
	% within TB Site	0.0%	100.0%	
Skin	Count	0	1	
	% within TB Site	0.0%	100.0%	
bone	Count	0	1	
	% within TB Site	0.0%	100.0%	
sub-mandibular	Count	0	1	
	% within TB Site	0.0%	100.0%	
Hilar LN	Count	0	1	
	% within TB Site	0.0%	100.0%	
breast	Count	0	2	
	% within TB Site	0.0%	100.0%	
Total		Count	57	100
		% within TB Site	36.3%	63.7%

Table II: Frequency of diabetes in EPTB patient

	Frequency	Percent
Diabetic	17	10.8
Non-Diabetic	140	89.2
Total	157	100.0

CONCLUSION:

Majority of patient with extra pulmonary tuberculosis were female and the most common site is cervical lymph node 26.1 %.