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SPECTRUM OF PRESENTATION OF PAEDIATRIC TUBERCULOSIS PATIENT'S IN TERTIARY CARE CENTRE

Pulmonary Medicine

Dr. Rupa Kolaparthi	Resident, Department of Respiratory Medicine, MGM Medical College
Dr. Ashish Deshmukh*	Professor & HOD, Department of Respiratory Medicine, MGM Medical College *Corresponding Author
Dr. Sunil Jadhav	Associate Professor, Department of Respiratory Medicine, MGM Medical College
Dr. Hafiz Deshmukh	Assistant Professor, Department of Respiratory Medicine, MGM Medical College MGM Medical College and Hospital, Aurangabad.
Dr. Shivprasad Kasat	Assistant Professor, Department of Respiratory Medicine, MGM Medical College MGM Medical College and Hospital, Aurangabad.

ABSTRACT

INTRODUCTION : TB is caused by mycobacterium TB, an aerobic non motile bacillus, described by "Robert Koch" on 24 March, 1882. TB remains major health concern, millions of people suffer of this infectious disease every year2. Studies on paediatric TB, is seldom available due to it's diagnostic difficulties1. Hence a study on paediatric TB is designed to evaluate the clinical spectrum of presentation of paediatric TB patients in tertiary care centre.

METHODOLOGY: The study was carried out in "Department of Pulmonary Medicine, Mahatma Gandhi Medical college" Aurangabad. Spectrum of presentation of paediatricTB of 100pts was carried out

RESULTS : There was preponderence of females (70%) in the study population as compared to males of (30%). Majority of population effected above 10ys of age. Most common form was pulmonary TB. Majorty of cases were newly diagnosed (92%) & among the extra pulmonary TB cases, majority of patient's had TB lymphadenitis(45%)

CONCLUSION: In this study paediatric TB was more common in pulmonary than extra pulmonary TB. Female preponderence was seen. Relapse cases were uncommon in paediatric TB. Tuberculosis lymphadenitis was the commonest presentation observed in our study group.

KEYWORDS

Pulmonary TB, extra pulmonary TB, clinical spectrum, AFB, Sputum & gastric lavage.

INTRODUCTION

TB remains a major health concern. Number of people die of this infections disease every year, even though it is curable. TB is caused by mycobacterium TB, an aerobic non motile bacillus, described by "Robert Koch" on 24 march 1882. Paediatric TB accounts to 10% of total TB. & one of the major causes of paediatric mortality[3]. Due to diagnostic difficulties, actual burden of paediatric TB is not known. Non specific clinical presentation, difficulty in obtaining specimens & slow growths of culture made diagnosis difficult in paediatric TB[1]. Hence the studies on paediatric TB are seldom available. So a study focussing on spectrum of presentation of paediatric TB in tertiary care centre is carried out.

AIMS & OBJECTIVES

- Spectrum of presentation of paedtiatric TB in our hospital, focussing on age & sex distribution, pulmonary & extra pulmonary cases, first time & relapse TB cases & different types of extra pulmonary TB.

METHODOLOGY

Prospective, questionnaire based study carried out in department of pulmonary medicine, Mahatma Gandhi medical College and Hospital, Aurangabad.

INCLUSION CRITERIA

- Children below 18 yrs
- All children (Male & female) with TB

EXCLUSION CRITERIA

- Congenital TB.
- Pt's whose parents are not willing to give consent for the study.

SAMPLE SIZE

- 100 cases of TB included in the study, attending MGM Medical college.

STUDY PROCEDURE.

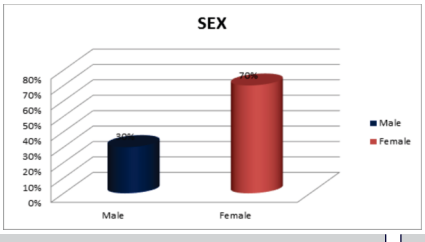
TB patients of age up to 18 yrs, satisfying the inclusion & exclusion criteria, were informed about the nature & purpose of study, risks & benefits associated with the study were enrolled. Children who were failure to thrive or clinical symptoms[5] and signs suggestive of TB were investigated for TB. After obtaining written informed consent from the parent, a detailed clinical history, family history of contact with TB disease & physical examination of each child was recorded. Complete blood count, Mantoux test, chest X-ray were done for all the cases. Interpretation of Mantoux test & blood counts were done using the standartized methods. Fine needle aspiration cytology, ultrasound abdomen, x-ray spine, lumbar puncture, abdominal paracentesis, CT & MRI, if relevant were done after consulting paediatrician. Sputum examination[4], if not feasible then gastric lavage was performed for all suspected cases of TB. All diagnosed cases were put on anti tuberculosis treatment & monthly follow up was done until 6 months.

RESULTS

Study was performed in the pulmonary medicine department of MGM medical college, Aurangabad. 100pts diagnosed with TB, Satisfying inclusions & exclusion criteria were included in the study. There was preponderance of females (n=70; 70%) in study population as compared to the male population (n=30; 30%) (table -1)

TABLE 1: DISTRIBUTION OF CHILDREN ACCORDING TO SEX

SEX	FREQUENCY	%
Male	30	30%
Female	70	70%
Total	100	100%



Out of all cases of TB, 34% (n=34) were under 10yrs of age, in which male population were 19% (n=19) & female population were 15% (n=15). Above 10yrs of population constitute 66% (n=66), in which males were (n=11) 11% & female population were 55% (n=55). So there was a large proportion of female population were affected above 10 yrs of age

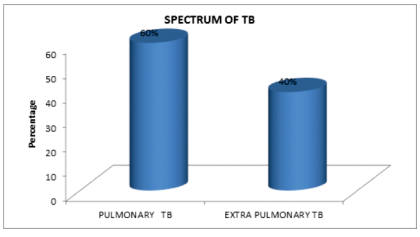
TABLE 2: DISTRIBUTION OF CHILDREN ACCORDING TO AGE

	BELOW 10 YRS		ABOVE 10 YRS	
Sex	N	%	N	%
Male	19	19%	11	11%
Female	15	15%	55	55%
Total	34	34%	66	66%

Out of 100 cases of TB, 60%, n=60 patient constitute pulmonary TB & 40% n=40 patient constitute to ex pulmonary TB cases.

TABLE 3: SPECTRUM OF TB

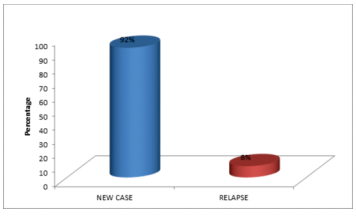
PULMONARY TB		EXTRA PULMONARY TB
Frequency (n)	60	40
%	60%	40%



New cases of TB were of 92% n=92 & 8% 8 patient's had replases.

Table 4

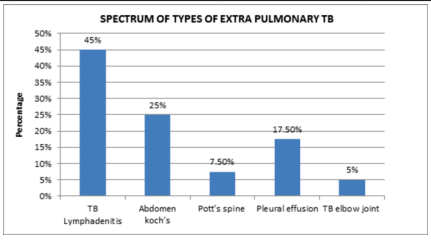
	NEW CASE	RELAPSE
Frequency (n)	92	8
%	92	8



Regarding the spectrum of types of extrapulmonary TB cases. Out of n=40 pts diagnosed to have extrapulmonary TB, 45% n=18 had TB lymphadenitis, 25% n=10 had abdominal koch's, less commun sites were 7.5% n=3 pott's spine, 17.5% n=7 pleural effusion& 5% n=2 of TB elbow joint

TABLE 5: SPECTRUM OF TYPES OF EXTRA PULMONARY TB

		Frequency (n)	%
1	TB Lymphadenitis	18	45%
2	Abdomen koch's	10	25%
3	Pott's spine	3	7.5%
4	Pleural effusion	7	17.5%
5	TB elbow joint	2	5%
		40	100%



DISCUSSION

Study conducted at dept of pulmonary medicine MGM hospital, out of 100 patient's female preponderance 70% (n=70), as compared to males (n=30) 30%, & majority of patients effected were above the age of 10yrs, accounts to (n=66) 66%, in which female population is predominant (n=55) 55% , may be due to more exposure to infection .The youngest patient was 1 yr & eldest patient was 18 yrs. While calculating the spectrum of TB, pulmonary TB was observed to be most common form of TB 60% (n=60) ; majority of cases was new & only 8% (n=8) had relapses. Among the extra pulmonary TB cases of (n=40); majority of pts were of TB lymphadenitis (n=18), 45% & abdomen Koch's (n=10); 25%.

CONCLUSION

These was preponderance of females (70%) in study population. With majority of population affected above 10 yrs of age. Most common form of TB was pulmonary TB (60%) followed by extra pulmonary TB (40%). Majority of cases were of newly diagnosed (92%) and very few relapsed cases (8%). Among the extra pulmonary cases, majority of them has TB Lymphadenitis (45%) & Koch's abdomen (25%).

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