Pattern of Admissions in A Thoracic Unit

Pages with reference to book, From 278 To 281

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Abstract

Four hundred and fifty four patients were admitted at the Chest Unit of Jinnah Postgraduate Medical Centre during the year 1982. Two hundred and thirty two had tuberculosis while 222 other respiratory disorders. Majority of the patients with tuberculosis presented in 10-40 years age group, and over 80% had paranchymal disease. Thirty Eight percent were old cases, who had some form of chemotherapy before admission usually by general practitioners. Diagnosis was mainly clinic-radiological and only 3 patients had bacteriologically confirmed disease. Average stay in the hospital was 27.8 days for both sexes. Twenty two patients (9.4%) died mainly with advance pulmonary disease or its complications and other associated diseases.

Introduction

A study was conducted in the Chest Unit of Jinnah Postgraduate Medical Centre to evaluate the mode of admissions, pattern of disease, diagnostic and therapeutic practices with a view to identify the areas of deficiencies, requiring improvement so as to derive maximum benefit from the facility as it exists at present.

Material and Methods

All admissions to the chest unit of Jinnah Postgraduate Medical Centre for the year 1982 (1st Jan. to 31St Dec.) were studied. Every patient was recorded on a standard proforma as soon as possible after admission. No attempt was made to influence the prevailing procedures, regarding admission, history taking, investigations, diagnosis or treatment; cases were followed up till their discharge, daily progress was noted and all investigations recorded.
Chest Unit consists of one Tuberculosis Ward with 17 beds (5 F, 12M) and one non-Tubercular Chest Ward with 20 beds (8F, 12M) in two different parts of the hospital, staffed by a physician, Resident medical officer and three house physicians. Most of the patients are admitted through the out-patients and casualty departments, provisional diagnosis is made in outpatients department and then admitted in the relevant ward. Collection of specimens is done by the nursing staff. Sputum is collected in small mouth injection bottles with no instructions to the patients, and the specimens are not always satisfactory. Investigations are performed mainly at the hospital laboratory.

Results

A total of 454 patients were admitted (232 Tubercular, 222 non-Tubercular). This paper deals with pulmonary Tuberculosis patients.
Of 232 patients, 165(71.1%) were males and 67 (28.9%) females, male: female ratio being 2.4 : 1. Ages ranged from 9-80 years. Mean age in males was 41.40 years while in females 33.87 years. Age distribution revealed maximum cases in 10-40 years age group (59%) in both sexes (Fig.)

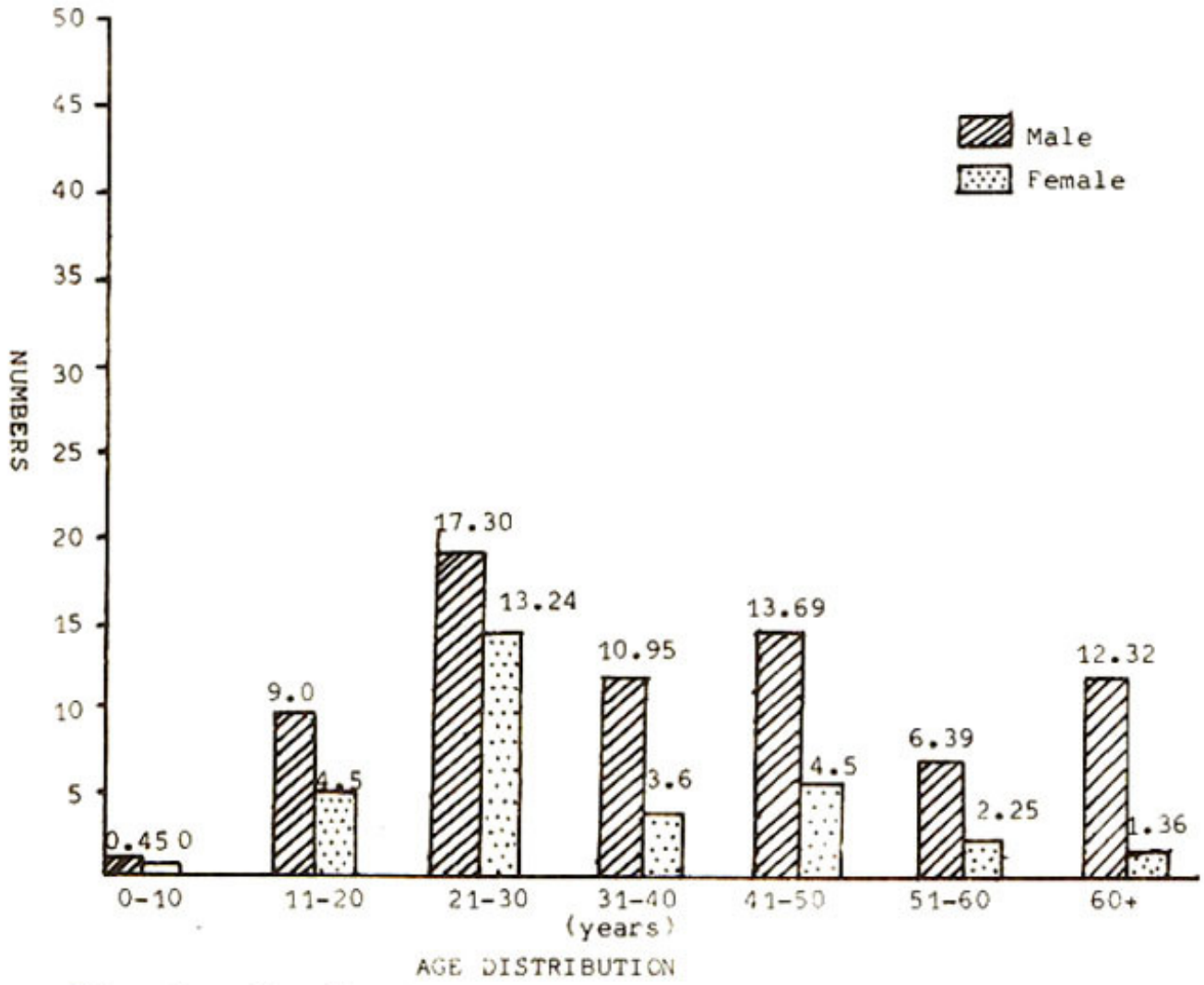

Fig. **Age distribution.**

Male predominance was observed in patients over 60 years of age.
Seventy-seven percent presented with classical symptoms of tuberculosis (Table I).

Table–I

Presenting Symptoms Amongst the Tubercular Patients.

Chest Pain	49	(21.29%)	
Haemoptysis	48	(20.83%)	
Cough	29	(12.5%)	77.42%
Fever	27	(11.6%)	
Breathlessness	26	(11.2%)	
Gastroenteritis	9	(3.87%)	
Peripheral Odema	8	(3.44%)	10.75%
Weakness	8	(3.44%)	
Others	28	(12.8%)	12.06%
Total	232		100%

Chest pain being slightly higher (21.29%) than Haemoptysis (20.83%). Cough, fever, breathless-ness (36%) were other major symptoms.

Table–II Radiological Pattern in 232 Tubercular Admission.

Parenchymal Disease				
	Unilateral	Bilateral	Total	%
Minimal disease	37	4	41	
Moderate disease	28	33	61	
Extensive disease	5	81	86	
	70	118	188	(81.03)
Effusion				
	With Lung involvement	Without lung involvement	Total	
Right	2	13	15	
Left	3	9	12	(11.63)
	5	22	27	
Pneumothorax				
	With lung involvement	Without lung involvement	Total	
Right	7	–	7	
Left	2	3	5	
	9	3	12	(5.1)
		Miscellaneous	5	(2.15)

Table II shows that 188 (81.03%) patients had parenchymal disease and vast majority had extensive bilateral involvement, 27 (11.63%) had pleural effusion with or without lung involvement and 12 (5.1%) pneumothorax. There were2 cases of meningitis with miliary Tuberculosis (one while on antitubercular therapy), 3 cases of cold abscess and 2 cases of abdominal tuberculosis. Twenty six percent of the admissions were with complications or other associated diseases. Associated diseases were diabetes, pneumothorax, and bronchopleural fistula.

Eightynine (38.3%) were old cases having been diagnosed in various other centres, and had some kind of antitubercular therapy, mainly irregular, mostly prescribed by general practitioners. Some had healed pulmonary tuberculosis and were admitted with conditions not connected with the disease.

Diagnosis was mainly clinic-radiological. Bacteriologically only three patients were confirmed by positive sputum from private laboratories.

Treatment was mainly with standard drugs i.e., Streptomycin, Isoniazid, Thiacetazone, though Rifampicin was also quite popular amongst the junior staff. Since no sputa were reported positive, no bacteriological progress could be documented and progress was mainly on symptomatic relief and radiological improvement.

Twenty-two (9.4%) deaths were mainly in patients with very extensive disease or complications, while

twelve (5.3%) left against medical advice.
Average stay in the hospital was 27.28 days range being from 1-196 days.

Discussion

Majority of the patients are admitted either through outpatients, or casualty departments mainly with complications, while few are transferred from other units. Patients with history of tuberculosis (healed) coming in as emergency unrelated to tuberculosis are not admitted by any other unit with the result that acute emergencies are admitted in Tuberculosis Ward, for which it is not equipped to deal. It is desirable that all old patients with tuberculosis who have had full course of therapy should be admitted in units best equipped to deal with that emergency. Patients who have had full course of anti tubercular drugs should be treated as non-tubercular in this regard.
Laboratory investigations, leave a lot to be desired. Bacteriological confirmation of tuberculosis should not only be desirable but mandatory; in the present set up the lack of it is three-fold. (a) Faulty and indifferent collection of sputum. (b) Over-work in the hospital laboratory. (c) Admission of partially treated patients. Patients usually prefer to be treated privately till their money lasts, presenting at hospital only as a last resort and it is possible that they have already achieved sputum conversion before admission.
This situation can be improved by having a person (lab.assistant) trained in collecting and performing direct smears of sputum for acid fast bacilli in a laboratory attached to the Ward, who would be responsible for collection and examination of direct smears. This will improve the yield of positive sputa and diagnosis, hence the therapy will improve. Dependence on private laboratories for reliable results, and radiology will minimise. Old cases will be assessed better before starting retreatment, as in the vast majority further therapy will not be required. With the present rate of positive sputum (if correct) it appears that there are very few infectious cases (amongst admitted) and hence pose no major problem as far as the spread of the disease is concerned. Unless a more efficient method of doing direct smear is available, no true picture will emerge as to the efficacy of the therapy. Cultures are not done at all and in exceptional cases private laboratories are used. The therapy by and large is with standard drugs i.e., Isoniazid, Ethambutol, Thiacetazone and Streptomycin. Ethambutol seems to have replaced para, amino Salicylic acid largely due to better patient acceptability. Rifampicin also remains a popular drug amongst the patients and junior staff, and patients use all sorts of excuses to get it.
Change of therapy is largely on history of previous treatment and radiological findings. In rare circumstances (there is no arrangement for culture and sensitivities in the Unit) sensitivities are performed only by private laboratories.
Facilities for accurate AFB culture and sensitivity in a unit like this are necessary for case detection, therapy and the follow up of patient with pulmonary tuberculosis.