TUBERCULAR PATIENTS

A Study on P.G.I. Employees and Dependents

Mrs. A. K. MALHOTRA
Dr. INDRA DUGGAL
Mrs. SAROJ SHARMA

Tuberculosis is a disease of the whole world. But it is more prevalent in the developing countries, particularly India.

TUBERCULOSIS is the most widely spread infectious disease in human society. It has been etsimated that there are approximately seven million cases of tuberculosis in the world, more than three quarters of them are in the developing countries. Each year, about three and half millions die of this disease (Bulla, 1977). In India the incidence of this disease is as high as 132 per 100,000 cases (Murthy, 1976).

Although T.B. is a disease of the whole world, yet it is more prevalent in the developing countries, especially in India. The success of National Tuberculosis Eradication Programme depends on early detection of the disease and proper treatment for the prescribed period, willingness, and whole hearted participation of the patient and his family members.

Sensitive Treatment

Tuberculosis continues to be a health problem and is, therefore, of concern to the nurses and doctors particularly to the community health nurses. It requires treatment for longer duration of one to two years continuously and supervision against the side effects of drugs, their toxicity and a psychological support to the patient.

In prolonged treatment, it becomes difficult for the patient to continue taking drugs and he is listed as a drug defaulter. Srivastava (1981) has pointed out that the problem of drug defaulter has been commonly observed where therapy has to be continued for a long period. In the case of tuberculosis, it is of great importance, since such patients are not only risk of developing drug resistance organisms, but could possibly be dangerous to others. Khanna (1977) has also expressed that tubercular drugs have a social significance because a patient imposes a threat not only to himself, but also to the community he lives in by spreading the drug resistance organism.

It is important that prophylactic measures should be updated and studies should be conducted to identify the factors responsible for the dropouts in tubercular patients. Hence the present study was conducted on Post-Graduate Institute of Medical Education and Research employees and their relatives registered at the staff clinic of Nehru Hospital to find out the rate of dropout cases and the factors responsible for discontinuity of anti-tubercular drugs.

Material and Methods

The present study was undertaken at the staff clinic of Nehru Hospital, Chandigarh. Ninety persons (P.G.I. employees and their relatives) suffering from tuberculosis were registered at the staff clinic of Nehru Hospital. Out of ninety, only 60 could be interviewed individually in their homes, in their working place or at the staff clinic, with the help of oral questionnaire. Information regarding following aspects were obtained: 1. Personal and family information; 2. Organ infected by tuberculosis; 3. Symptoms for which person sought advice; 4. After how much duration person came to seek medical advice at the staff clinic; 5. Reasons for stopping the medicine; 6. Pattern of side-effect among tubercular patients.

Results and Discussion

The results of the present study are presented as follows:

Personal and family information of the 90 patients; 49 were male, 29 female adults, 7 male and 5 female children. It is proved that it is more prevalent among males than females. 53.3 per cent of total sample are P.G.I. employees and 47.7 per cent their dependents who took treatment from staff clinic.

Tuberculosis tends to be higher in the low socio-economic groups than in the high income group (Park, J. E.). This study indicates 40 (67%) cases out of 60 belong to low socio-economic group. 19 (32%) to middle income group and one (1.6%) from among the doctors.

The family size was found to be fairly large. 42 per cent came from families with total number more than 6 members in the household. In the large families the members' nutrition is affected which is a contributory factor for the occurrence of Tuberculosis.

Mrs. A. K. Malhotra is Lecturer at the College of Nursing, P.G.I. Chandigarh.
Dr. Indra Duggal is Medical Officer, Incharge at Staff Clinic Nehru Hospital.
Mrs. Saroj Sharma is Clinical Instructor, College of Nursing, P.G.I., Chandigarh.

Table 1. Indicates the organs infected by Tuberculosis,

Organ infected	Adult		Children		Total	Per-cent
	M	F	M	F		
Pulmonary Tuberculosis	31	26	4	2	63	76 %
Tubercular lymphadenitis	5	2	1	—	8	8.7%
Abdominal Tuberculosis	3	2	—	—	5	5.5%
Tubercular Arthritis	4	1	—	—	5	5.5%
Primary Complex	—	—	1	3	4	4.4%
Tuberculosis of Skin	3	—	—	—	3	3.3%
T.B. Meningitis	1	—	1	—	—	2.2%

Table 2. Shows various symptoms for which patient sought advice of Staff Clinic.

Symptoms related to various systems	Symptoms were present in the patients			
1. Pulmonary Tuberculosis	Chronic Cough 23	Chest Pain 13	Hemo ptysis 4	Dyspnoea 2
2. Abdonimal T.B. (Cock's Abd.)	Chronic Pain in Abdomen 4	Intermittent Vomitting 3	Diarihoea 2	Bitterness of mouth 1
3. Lymph nodes involvement (T.B.)	Swelling in neck 5	Swelling in the axilla with abscess 2	—	—
4. T.B. Meninghs	Headache 2	Unconsciousness 1	Stiffness of neck 1	—
5. Joints T.B.	Pain in joints with swelling 2	—	—	—
6. General symptoms	Low Grade fever 21	Giddiness feeling of weakness pain in body 19	Loss of weight 7	Growth retarded 1

Table 1 Indicates that 70 per cent of the total cases were suffering with pulmonary Tuberculosis, i.e., 31 male and 26 female, 3 female children were suffering with primary complex against one male child, which is on a higher rate in female children, and T.B. Meningitis is found in young age and male children.

Table 2 indicates that in Tuberculosis most of the people come with general complaints of low grade fever, loss of vigour, loss of weight. Any patient with history of chronic cough or intermittent cough of long duration, if asked for general complaints usually gives positive but he himself does not come out with it directly as such complaints are being ignored as for heavy work or due to shortage of time, they go on neglecting till it becomes too acute to see a doctor.

Patient reported at the Staff Clinic after suffering with the symptoms. 76.6 per cent of patients have tried to come before 6 months, 18.3 per cent before 12 months and 5 per cent reported before 24 months' period. Quite a number of patients have reported immediately and few after weeks or months. A large number of them are employees themselves, and staff clinic services being easily available to them, they reported at the earliest. Most of the patients who have come later than 6 months or one year are dependents of employees and most of these families are living outside Chandigarh (in villages) as they do not come for medical advice due to the distance.

Few of them have been getting treatment from local quacks for quite a long time.

Table 3—Period for which the treatment has been taken from staff clinic.

Duration of medicine taken (In months)	Frequency	Percentage
0- 3 months	12	20 %
3- 6 "	3	5 %
6- 9 "	6	10 %
9-12 "	14	23.3%
12-15 "	6	23.3%
15-18 "	13	21.6%
Irregular period 6	6	10 %
Total	60	100%

There were 90 patients diagnosed as tubercular cases, out of which 30 patients or one third of the total cases did not turn up for the treatment and follow up so the subjects available for interview were sixty for study. 23.3 per cent of patients continued treatment upto one year (Table 3), 85 per cent of total patients felt better after three months, 15 per cent after

Table 4: Side-Effect of Drugs

No side effect experienced	Had side effects of drugs	Not applicable	Not replied	Total
5	2	60	5	2	60
50%		38.3%	8.3%	3.3%	100%

6 months of treatment. Twenty five per cent of patients dropped out within 3-6 months, the reason being that most of them started getting feeling of being well and after sometime they just forgot to take medicines, so they stopped in spite of the doctor's repeated advice. Some of them felt that now the disease had been fully cured.

21.6 per cent have completed the prescribed course of 18 months. They are employees, who being working in PGI are fully aware of the consequences.

About 50 per cent respondents reported that there was side-effect of any drug experienced by them. 38.3 per cent respondents had side-effects of drugs out of which 78.2 per cent had experienced the side-effect of streptomycin, 17.3 per cent of Isonex and PAS, and 4.3 per cent of Ethembutal, 11.6 per cent did not give any information about it.

The reason, when asked, for discontinuation of drugs are usually: (1) patient feels he/she is cured of disease as now after sometime he/she starts feeling alright, (2) being away from hospital, (3) forgetfulness, (4) when one became pregnant she stopped at her own, (5) side-effects of drugs, (6) for seeking the treatment from surgeon.

Summary and Conclusion

The present study was conducted on PGI employees and the dependents who are suffering from Tuberculosis to get the information about the rate and reasons of drug defaulters among the P.G.I. employees or their relatives suffering with Tuberculosis. Sixty employees/relatives were interviewed with the help of an oral questionnaire and information regarding personal matters, family, disease, treatment, reasons for not continuing the anti-Tuberculosis therapy and the side-effects of drugs were obtained.

The analysis of the data showed that out of the total number of ninety registered tubercular employees/relatives, males were 54 per cent, female 32 per cent, children (male) 8 per cent, children (female) 6 per cent (Children are below 12 years of age). Employees (male and female) suffering with Tuberculosis are 53.3 per cent and their dependents are 47.7 per cent (dependents including both male and female adults as well as children). The system most commonly infected was pulmonary, i.e., in 70 per cent cases. Details of the subject revealed that 2/3rd of them (66 per cent) belong to low socio-economic group living in overcrowded houses.

These patients being workers of a teaching medical institute had sought medical advice and treatment at the earliest except two of them who were in the advanced conditions. One was having Tuberculosis of Abdomen and the other one had Pulmonary Tuberculosis. In spite of best possible efforts they died.

Regarding the dropouts, most of them had stopped taking medicine because of the feeling of being well and few were found to be irregular in taking medicine. The reason of irregularity in taking medicine and being a dropout were mainly feeling of being well, ignorance about the disease and need for longer duration of treatment.

These drug defaulters are a great threat to the Institute. They are a source of spread of disease to others and they will not respond to the first line of treatment once they have become drug resistant. The second line of treatment is costly. Keeping in view the above facts the following measures may be recommended to reduce the rate of dropouts and the incidence of disease. Health education is a tool to be used to bring awareness in the employees about the importance of control and prevention of this disease.

1. At the staff clinic weekly tuberculosis clinic should be run for the employees.

2. There is a need for the post of P.H.N. at the Staff Clinic to perform the following functions: Explanation to the employees of the anti-tubercular therapy and for its continuity; follow-up with these families in the houses, for continuity of treatment; complete record of these families to be maintained by P.H.N.

3. Anti-Tuberculosis drugs should be provided for the total leave period at a time.

4. Emphasis should be placed on the prevention and control of disease through continuous health education programme run at the staff clinic by P.H.N.

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