Management of Tuberculosis By Practitioners of Peshawar

Pages with reference to book, From 280 To 282

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Abstract

In this report the drug prescribing practices of practitioners are described. The results indicate that a high proportion (80%) of practitioners still prescribe long duration chemotherapy. The most frequently prescribed drugs are rifampicin (87%), isoniazid (89%) and streptomycin (73%). Despite the use of these highly effective drugs the duration of illness after diagnosis in 31% is over three years. The possible reasons for the poor control of the disease are noncompliance with treatment and multidrug resistance of mycobacterium tuberculosis. The prescribing practices of the practitioners indicate that they are not receiving continuing education and training on the case management of TB (JPMA 44:280,1994).

Introduction

Tubeitulosis, the “World’s most neglected epidemic” remains amajorpublic health problem in developing countries owing to the poor implementation of control measures. Early detection and effective treatment of smear positive tuberculosis patients has been found to be the most cost effective strategy for the control of disease. Other control measures are IBCG vaccination at birth and chemoprophylaxis in infected contacts of smear positive cases and other recent tuberculin converters[1]. The efficacy of 6 drugs recommended by WHO for treatment in different combinations and for varying durations, has been demonstrated in several clinical trials and even therapy of 3 months duration has been found to have the probability of curing 80% of cases[1]. Both WHO and the National TB Control Programme are promoting the use of short course chemotherapy of 8 months duration under supervision now[2,3]. The treatment schedule has an intensive phase of 2 months and maintenance phase of 6 months. In the intensive phase rifampicin, isoniazid and pyrazinamide are always used along with either ethambutol or streptomycin. The drugs are either given once daily intennittently 2 or 3 times a week. The intermittent administration of drugs makes it possible for health workers to give the drugs themselves to the patients. In Pakistan a National tuberculosis control programme[3] including all the above strategies is being implemented since the sixties for the control of disease. However, to date not much impact of the programme is discernable mainly owing to the absence of intensive implementation of control measures. Active case detection suffers from a chronic lack of resoumes especially that of widely available trained laboratory technicians and X-ray facilities. Treatment of cases is often inadequate and inappropriate owing to lack of training of health care workers, scarcity of medicines in health care facilities, absence of control on drug sales and hence over the counter sales and self medication by patients and widespread lack of patient compliance with therapy. The above discussion on the reasons for the poor performance of the National TB Control Programme is how ever mostly speculative since very little research has been done both under the programme and generally to generate information on the different aspects of the problem. The need for reliable information to improve the project implementation is obvious. The study being reported was undertaken to collect data on tubeitulosis case management practices of medical practitioners and the patients compliance with therapy. The information will hopefully be of help to the planners and implementers of the programme.

Material and Methods

The data for this study was collected from the following sources:

1. A prospective survey of out-patient departments (OPDs) of Government and Non-governmental (NGO, Tuberculosis Treatment Centres in Peshawar Metropolitan area. The study population was the diagnosed cases of TB attending these centres for treatment The centres surveyed were the chest OPD of Postgraduate Medical Institute, Lady Reading Hospital, OPDs of Hayat Shaheed Teaching Hospital and District TB Control Hospital and TB clinics at Ganj Gate and Asia Park. The interviews were done by a field team comprising of a sociologist, a lady health visitor and a research assistant. A total of 400 interviews were carried out.
2. Mailed questionnaire survey of doctors practicing in different parts of NWFP. A list of practitioners of NWFP, with addresses, was prepared with the help of the Peshawar Office of the Pakistan Medical Association. Questionnaires were sent to all along with a covering letter from the principal investigator of the study explaining the objectives of the study and requesting for the cooperation of the practitioner. A self addressed stamped envelope was also enclosed. A total of 300 were sent but only 135 responded.3. Collection of TB prescriptions from chemists in different areas of the city during the study period. The sociologist sat with a selected chemist in the evening and copied on a proforma prescriptions for anti-TB drugs which were. presented to the chemist. A total of 160 prescriptions were collected. The data from 3 sources mentioned above was analyzed to get a picture of prescribing practices for TB and the patient compliance with treatment. In this paper the prescribing patterns are being reported.

Results

Description of Study Subjects

01 400 patients interviewed, 174 (43.5%) were male and 226 (56.5%) female. Children comprised 13.5% of the total and 24% of over 50 years. Only 7% had an income of above Rs. 1000.00/month while as regards occupation 46.5% were housewives, 13.3% labourers, 6% shopkeepers, 5.5% students, 2% tailors, 1.7% government servants, 0.5% unemployed and 24% were non-responders. Education wise 61% were illiterate, 24% had received religious education only, 13% had primary and 2% secondary education. Of 135 practitioners who completed the questionnaires included 13 with postgraduate qualifications. Forty five percent had done their house jobs in medicine, 10% in other subjects and the rest were non respondents. The mean duration of practice was 14.77 years for 94 practitioners who gave this information. Over 30% of these were practicing for more than 20 years. 01160 prescriptions which were collected included 118 from consultants, 23 from medical officers and registrars and only 4 from trainee doctors.

Duration of IIIness

This information was sought from the patients attending the TB centres. The distribution is given in Table I.

Table I. Duration of illness of the patients interviewed (No. 400).

Duration of illness	Nos. (percent)	Confidence interval (95%)
> 1 year	120 (30)	25.5-34.5
1-2 years	76 (19)	15.1-22.9
2.1-3 years	80 (20)	16.0-24.0
3.1-5 years	48 (12)	8.8-15.2
5.1-10 years	64 (16)	12.4-19.6
10.1-15 years	12 (3)	1.3-04.7

Fifty one percent had a duration of illness of more than 2 and 19% of more than 5 years since diagnosis.

Prescribing Patterns This information was collected from 160 prescriptions scrutinized and 135 questionnaires completed by practitioners. Data from both the sources is presented in Tables II and III.

Table II. Number of anti-tuberculosis drugs per prescription.

No. of Drugs Drugs	No. and percent prescribing Hospital doctors n=160*	Private practitioners n=135**
Two	2 (1.3)	5 (4%) (CI 0.7-7.3)
Three	118 (73.7) (CI 66.8-80.6)	99 (73%) (CI 65.4-80.6)
Four	12 (7.5) (CI 3.5-11.9)	31 (23%) (CI 15.8-30.2)
Five	28 (17.5) (CI 11.5-23.5)	

* Prescriptions

** Doctors giving opinion

CI= 95% Confidence interval

Table III. Frequency of the prescription of different anti-tuberculosis drugs.

Name of drug	Frequency of prescribing	
	Hospital doctors Nos. (percent) n=160*	Private practitioners Nos (percent) n=135**
Rifampicin	140 (87.5) (CI 82.3-92.7)	117 (87) (CI 81.3-92.7)
Isoniazid	139 (86.8) (CI 81.5-92.1)	120 (89) (CI 83.7-94.3)
Streptomycin	118 (73.7) (CI 66.8-80.6)	99 (73) (CI 65.4-80.6)
Ethambutol	62 (38.7) (CI 31.0-46.4)	55 (41) (CI 32.6-49.4)
Pyrazinamide	57 (35.6) (CI 56.9-71.9)	58 (43) (CI 34.5-51.5)
Thiacetazone	24 (15.0) (CI 9.4-20.6)	22 (16) (CI 9.7-22.3)
PAS	5 (3.1) (CI 0.4-5.8)	6 (4) (CI 0.7-7.3)

* Prescriptions
** Doctors giving opinion
CI= 95% Confidence interval

Prescribing patterns of hospital doctors and private practitioners are shown in Tables II and III. Five dmgs were prescribed mainly in hospitals. Two and four drugs were more frequently given by practitioners while three drugs were prescribed with equal frequency by both groups. The frequency of use of various anti-TB was similar in both groups. The duration of treatment advised, according to the questionnaire information, was 6 months in 18%, nine months in 40% and 12 months in 44%. Additional drugs prescribed were tonics (72%) analgesics (20%) and antiussives (10%) (Table IV).

Table IV. Duration of treatment advised.

Duration advised	Hospital doctors Nos. (percent) n=160*	Private practitioners Nos. (percent) n=135**
≤3 months	74 (46.3) (CI 38.5-54.1)	
6 months	30 (18.7) (CI 12.6-24.8)	22 (16) (CI 9.7-22.3)
9 months	40 (25.0) (CI 18.2-31.8)	54 (40) (CI 31.6-48.4)
12 months	08 (5.0) (CI 1.6-8.4)	22 (16) (CI 9.7-22.3)
18 months	08 (5.0) (CI 01.6-08.4)	37 (28) (CI 20.3-35.7)

* Prescriptions
** Doctors giving opinion
CI= 95% Confidence interva

Further analysis of the questionnaires completed by the 135 practitioners showed that 3 1%see onan average 5 or more new cases of tuberculosis per month, while 45.5% see 2-4 and 18.5% less than 2 cases per month. Five percent did not respond to this question. For the diagnosis of tuberculosis X-ray chest is done by 64%, AFB smear by 41%, AFB culture by 12% and Mantoux and ESR is used by 21%.

Discussion

The results of this study show that the case management of tuberculosis is far from the guidelines of the National tuberculosis programme[3]. A third of the patients interviewed had a duration of illness of more than 3 years since diagnosis. This is despite the use of highly effective drugs like rifampicin. isoniazid, streptornycin, ethambutol and pyrazinamide in most of the cases, the problem appears to be of poor compliance. The irregular duration of treatment and the cost of drugs are the most likely causes of the poor compliance. Short course chemotherapy under supervision has been reported to be the best strategy for ensuring compliance. It is both feasible and effective[1,2]. The current prescribing practices of our practitioners indicate that they are not familiar with the advances in the treatment of tuberculosis. It is therefore, obvious that the National control programme has not been successful in implementing its major objectives. The inadequate application of strategies for the control of TB by national control pmgrammes has been held responsible for keeping the problem ‘smoldering’ over the past so many decades. The result has been an increase in multidnig resistant strains of tubercule bacilli which are reported to be infecting an estimated 50-100 million persons worldwide and will kill about

30 million persons in the developing countries over the next decade[1]. In a study of the primary resistance of mycobacterium tuberculosis reported in 1988 from Peshawar, 5.6% of strains were resistant to INH, 9.4% to streptomycin and 6.3% to both[4]. This was thought to be a high resistance rate since previously it was claimed that primary resistance to anti-TB drugs was nota problem despite their widesprad use. lithe health authorities of the country do not take notice of the situation tuberculosis will soon become an incurable disease again.

References

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