

CATEGORY II TREATMENT OF REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAMME IS IT ADEQUATE?

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Abstract :

Settings : Five DOT's clinics in Lucknow District, Uttar Pradesh, India.

Objectives :

- 1- To assess the adequacy of category II treatment.
- 2- To suggest measures to improve the quality and compliance.

Study Design : Observational Cohort study.

Result : In this study cure rate 74.3% Default rate 2.8%, and failure rate 1.4%. Treatment completion 15.7%.

Conclusion : It can be concluded from the study that Category II treatment regimen is quite good.

Key Words : DOTS, Category II RNTCP

Introduction :

India has more cases of tuberculosis than any other country in the world. Around 2.2 million people are detected having tuberculosis every year (approximately (25% of the world), over 0.5 million die of this disease every year (17% of the world) i.e. more than 10000 every day. Total population suffering from active disease in India is 14 million of which 3-3.5 million (20-25%) of total) are positive for sputum¹.

Despite the existence of National Tuberculosis Control Programme since 1962,

tuberculosis remains the leading infectious cause of death in India. In spite of the programme having been in operation for three decades, no significant epidemiologic impact on disease prevalence has been observed².

With this background in 1992, the Govt. of India together with the World Health Organization and Swedish International Development Agency (SIDA) reviewed the national programme and concluded that the programme suffered from managerial weakness, inadequate funding, over reliance on X-ray, non-standard treatment regimens,

low rate of treatment completion and less of systemic information on treatment outcomes. Therefore a Revised National Tuberculosis Control programme was designed².

The goal of Revised National Tuberculosis Control Programme was to detect at least 70% of new smear positive cases of tuberculosis and to cure at least 85% of such cases, with this background, we studied the adequacy of category II treatment of Revised National Tuberculosis Control Programme.

Material & Method :

The present study was carried out on patients attending DOTS clinic in Lucknow District. Out of 386 sample patients, only 70 patients who were on category II treatment interviewed to estimate the adequacy over a period of one year from September 2000 to August 2001. The study was planned to be conducted in 5 DOTS clinics of Lucknow District of Northern India

An attempt was made to formulate the schedule in a precise relevant and simple manner. The schedule was pre-tested and the questions modified accordingly so as to get accurate & relevant information. After pre-testing of the interview schedule, DOTS clinic

visit were undertaken and to ensure active support and co-operation of the subjects, the aim of the study was explained to them. For the purpose of this study the detailed history about bio-social profile was taken viz. age, sex, education, occupation, religion, socioeconomic status, Over crowding, smoking history, etc. was gathered. They were interviewed for the adequacy of Category II treatment.

Results :

TABLE-I

Distribution of Patients in Category II Treatment

| Type of patients | No. | % |
|-------------------------|-----------|--------------|
| Relapse | 23 | 32.8 |
| Treatment Failure | 7 | 10.0 |
| Treatment after default | 40 | 57.1 |
| Total | 70 | 100.0 |

Distribution of patients of category II treatment in table I presents that majority (57.1%) of patients were those which had defaulted treatment earlier. 10% of the patients who were given treatment in category II were those cases, which had been labeled as failure cases.

TABLE-II

Sputum Examination of Category II patients at various stages

| Result | At end of Intensive Phase (n=70) | | After 2 months of Continuous Phase (n=64) | | At end of Continuous Phase (n=53) | |
|--------------------------|----------------------------------|------------|---|------------|-----------------------------------|------------|
| | No. | % | No. | % | No. | % |
| Sputum positive patients | 21 | 30 | 5 | 7.8 | 1 | 1.9 |
| Sputum Negative Patients | 49 | 70 | 59 | 92.2 | 52 | 98.1 |
| Total | 70 | 100 | 64 | 100 | 53* | 100 |

*Out of 70 patients 17 patients couldnot be followed the sputum examination as they left the treatment. Results of sputum examination of category II treatment at the end of intensive phase (tableII) show that 30% of the patients remained sputum positive after the completion of intensive phase of the treatment and after two months of continuous

phase with 64 patients available, 59 (92.2%) patients became sputum negative and remaining 5 (7.8%) patients remained sputum positive. On sputum examination at the end of continuous phase only 1.9% were found to be sputum positive while majority (98.1%) were sputum negative.

TABLE-III

Distribution of Outcome of the Patients of Category II Treatment

| Out come | Type of cases | | | Total |
|----------------------|------------------|-----------------|-------------------------|---------------|
| | Relapse | Failure | Treatment after default | |
| Cured | 14 (60.9%) | 6 (85.7%) | 32 (80.0%) | 52 (74.3%) |
| Failed | 0 (0.0%) | 0 (0.0%) | 1 (2.5%) | 1 (1.4%) |
| Default | 2 (8.7%) | 0 (0.0%) | 0 (0.0%) | 2 (2.8%) |
| Treatment completion | 6 (26.1%) | 1 (14.3%) | 4 (10.0%) | 11 (15.7%) |
| Transferred out | 1 (4.3%) | 0 (0.0%) | 3 (7.5%) | 4 (5.7%) |
| Total | 23(32.9%) | 7(10.0%) | 40(57.1%) | 70 |

Treatment outcome of all category II the patients enrolled is shown in table III. Category II treatment cases had cure rate of 74.3% and failure rate of 1.4%. Cure rate was maximum (85.7%) among treatment failure case while it was only 60.9% among relapse case.

Discussion :

It was observed in this study that about one third (30%) patients in Category-II of treatment remained sputum positive at the end of Intensive phase. Zalesky et al (1999) reported that after 3 months of treatment sputum conversion rate for relapses and other retreatment cases was 85% and only 15% remained sputum positive³. Chadha et al (2000) reported sputum conversion rate of 76.9% in Category-II patient at the end of intensive phase⁴. J.A. Kumarsen et al (1998) reported sputum smear conversion at 2 months was 85%. In the present study 98.1% of the category II patient turned sputum negative at the end of continuous phase⁵. Srivastava et al (2000) reported sputum conversion rate of about 82% among retreatment cases. In present study 1.9% patients of category II treatment were remained smear positive at end of continuous phase⁶. Khatri et al (1999) also recorded that only 8.5% of the patient remaining smear positive at end of category II treatment⁷.

In the present study, it was found that cure rate in category II treatment was 74.3% and failure rate was 1.4% similarly Srivastava et al (2000) reported 74.9% cure rate among

retreatment cases⁶. Chaddha et al (2000) also reported 73.3% cure for category II patients. Bhat et al (1998) reported cure rate of 65% and failure rate of 13%⁸. M Zwarenstein et al (1998) observed 42% successful outcome in retreatment patients⁹.

Observing this we can say that category II treatment regimen is quite good and to improve further we suggest that :

Community health worker viz. primary School teachers and other volunteers like NGO's etc. should be engaged to provide DOTS therapy effectively.

Community health workers should also be involved in counseling and educating the patients about DOTS therapy.

Direct observation may be the wrong emphasis. Instead of watching people swallowing pills, health workers could be counseling patients and helping them complete their treatment.

The private practitioners should be encouraged to motivate the patients for completing DOTS treatment. In private sector, doctor should encourage the patients to attend the DOTS clinic & their guidelines.

To improve sputum conversion and cure rate of defaulters, tracing should be intensified and full course treatment under DOTS should be completed.

The task of administration of DOTS should be handed over to panchayat functionaries and regular programming among

them.

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