

CASE STUDY OF DEFAULTER PULMONARY TUBERCULOSIS WITH RIGHT PLEURAL EFFUSION

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ABSTRACT: Defaulter pulmonary tuberculosis means the patient whose treatment was interrupted for equal to or more than 2 consecutive months. Treatment of default is one of the biggest problems in the treatment of tuberculosis[TB] today. Due to the interrupted treatment it may lead to severe complications. Here, right pleural effusion is present. Pleural effusion: A build-up of fluid between the tissues that line the lungs and the chest. Fluid can accumulate around the lungs due to poor pumping by the heart or by inflammation. Tuberculous pleural effusion is one of the most common forms of extrapulmonary tuberculosis. As defaulter pulmonary tuberculosis with right pleural effusion is a condition caused for patient whose treatment was interrupted for equal to or more than 2 consecutive months. So, treatment should not be interrupted because it leads to severe complications.

KEYWORDS: Defaulter, interrupted treatment, pleural effusion.

1. INTRODUCTION:

Defaulter pulmonary tuberculosis means the patient whose treatment was interrupted for equal to or more than 2 consecutive months. Treatment of default is one of the biggest problems in the treatment of tuberculosis today. Due to prolonged treatment duration of 6-8 months, patient often decide to abandon treatment mid-way, especially since the symptoms of the disease usually subside after about 2 months, while the side effects of the various antibiotics persist. Due to the interrupted treatment it may lead to severe complications. Here, right pleural effusion is present. Pleural effusion: A build-up of fluid between the tissues that line the lungs and the chest. Fluid can accumulate around the lungs due to poor pumping by the heart or by inflammation. Tuberculous pleural effusion is one of the most common forms of extrapulmonary tuberculosis. Pathophysiology of tuberculosis include inhalation of bacilli, containment in the granuloma, and breakdown of granuloma in less immunocompetent individuals. Dose of tubercular drugs is most

Recommended Doses Of First-line Anti-tuberculosis Drugs For Adults

Drug	Recommended dose			
	Daily		3 times per week	
	Dose and range (mg/kg body weight)	Maximum (mg)	Dose and range (mg/kg body weight)	Daily maximum (mg)
Isoniazid	5 (4–6)	300	10 (8–12)	900
Rifampicin	10 (8–12)	600	10 (8–12)	600
Pyrazinamide	25 (20–30)	–	35 (30–40)	–
Ethambutol	15 (15–20)	–	30 (25–35)	–
Streptomycin*	15 (12–18)		15 (12–18)	1000

important.

fig1.anti tubercular drug dosing chart.

Dose of anti tubercular drugs depends on the weight of the patient. About 21% of the tuberculosis cases are defaulted due to interrupted treatment. So, drug therapy course must be properly followed.

2. CASE REPORT:

2.1 CASE:

A male patient on age 60years was admitted to a local hospital with the chief complaints of fever, burning micturition, chest pain – right side since 10days. On physical examination, the patient was moderately built weighing 49kgs, blood pressure was found to be 90/60mmHg, Pulserate- 122beats/min, Temperature: 100degree Fahrenheit. Laboratory tests were as follows: serum bilirubin total:0.7mg/dl, direct:0.3mg/dl, indirect:0.4mg/dl, S.G.P.T: 24U/I, S.G.O.T:17U/I, Alkaline phosphate:262U/I, Fasting blood sugar:140md/dl, pleural fluid analysis:74.2U/L[strong positive]. Diagnosis is done based on patients previous history of pulmonary TB and pleural fluid analysis.



fig2. Tuberculosis chest x-ray



fig3.right pleural effusion –chest x-ray.

The patient was hospitalised with the diagnosis of Defaulter pulmonary tuberculosis with right pleural effusion. Day 1 to Day3 treatment: Intravenous Fluids[IV] -1Pint[473.176millilitres] normal saline[NS], 1pint dextrose normal saline[DNS], Oxygen inhalation:4litre/minute, Injection Augmentin [pencillin

antibiotic] of dose 1.2g given IV thrice daily. Tablet pantoprazole [antacid] of dose 500mg given thrice daily. Tablet Azee[azithromycin] of dose 500mg given once daily. Nebulisation with asthalin and budesonide 6th hourly. Syrup ambroxol[mucolytic agent] given thrice daily. On day 4, the patient got discharged with medications: start AKT-4 which is a kit containing 4 anti-tubercular drugs [isoniazid-300mg, rifampicin-450mg, ethambutol-800mg, pyrazinamide-750mg], tablet benadon[natural form of vitamin B6] - once daily, tablet multivitamin - once daily, tablet pantoprazole [antacid] of dose 40mg given once daily. Supportive treatment was given and the patient was discharged to review after 30 days.

3. DISCUSSION:

Defaulter pulmonary tuberculosis means the patient whose treatment was interrupted for equal to or more than 2 consecutive months. Treatment of default is one of the biggest problems in the treatment of tuberculosis today. Due to prolonged treatment duration of 6-8 months, patients often decide to abandon treatment mid-way, especially since the symptoms of the disease usually subside after about 2 months, while the side effects of the various antibiotics persist. Due to the interrupted treatment it may lead to severe complications. Here, right pleural effusion is present. Pleural effusion: A build-up of fluid between the tissues that line the lungs and the chest. Fluid can accumulate around the lungs due to poor pumping by the heart or by inflammation. Tuberculous pleural effusion is one of the most common forms of extrapulmonary tuberculosis. So, the duration of course is very important in the treatment of TB. Anti-tubercular drugs should be given considering the weight of the patient.

4. CONCLUSION:

Although pulmonary tuberculosis is a well-known condition, interrupting and missing the medications may lead to additional morbidity and complications. A prompt recognition, and precocious treatment with proper course of treatment may prevent further complication and also helps in speedy recovery of the patient.

ABBREVIATIONS:

TB: Tuberculosis

IV: Intravenous

N.S: Normal saline

D.N.S: Dextrose normal saline

CONFLICT OF INTERESTS:

Declared none

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