

Drugs through Skin to Lung Treating Tuberculosis by Target Treatment Injection of Micro-Injury (TTIM)

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Abstract

This paper mainly introduces a newly invented therapy which is called Target Treatment Injection of Micro-injury (TTIM) treating tuberculosis of the lung. Target treatment injection of micro-injury is to use the compound anti-TB medicine injecting into the TB focus through skin to the lung according to Computerized Tomography (CT) dimensionally, then aide with nutrition, movement, body and mental treatment at the same time to cure the disease once a time.

This is the best way to cure TB because it costs little, not much relapse and can cure all kinds of tuberculosis, take pleuritis and pulmonary tuberculous cavity for example, it is just easy as to treat general diseases for this special target treatment injection of micro-injury. It is just simple operation and easy to study and control the skill.

Target treatment injection of micro-injury interventional therapy introduction: Tools-CT photo of patients' chest, ruler, caliper, syringe needle with many pinholes, 5 ml and 20 ml syringe, deep venipuncture disinfection package for tube placing patients.

To calculate the distances between the focus to the presternal notch and to crest then find the nearest and safe place to inject anti-TB drugs into the lung focus by local anesthesia with potentiated anesthesia or medication by placing tube.

Keywords: Tuberculosis; TTIM; Therapy

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Citation: Cheng G, Yang Y, Liu Z, et al. Drugs through Skin to Lung Treating Tuberculosis by Target Treatment Injection of Micro-Injury (TTIM). *Insights Chest Dis.* 2017, 2:2.

Received: February 24, 2017; **Accepted:** July 21, 2017; **Published:** July 31, 2017

Introduction

TB is a very serious infectious disease that threatens people's health in the world. After the establishment of the People's Republic China TB in the country declined but it becomes serious again by more infection, relapse, patient with drug resistance and more death.

The modern medical science has a clear cause, treatment method and ways to resolve and treat to TB but the fact is that more patients cannot recover and torturing great bitter. The main cause is that the common movement of people, the increase of density of people and the treatment of TB has just become a mere formality. Target Treatment Injection of Micro-injury (TTIM) is produced in this national and international environment and is invented by the research group of professional doctors with head of Yang Yushan in the Shanxia Hospital, Shenzhen China, for more

than 20 years studies. Year after year they cure more than 3000 patients with a rate as high as 98%. The main characteristics of the method are short period of treatment, less cost, fast effective, and not easily recurred. It may become the good way to treat the disease and dissolve the century difficult problem, get out of misunderstanding and strange circle of tuberculosis [1].

Understanding and Discoveries

Misunderstanding for the disease

TB is produced by the tubercle bacillus lonely, and it is thought since 1882 Robert Koch found the bacterium and not ever changed. But it is found the disease is often common infected with other microorganisms, especially conditioned pathogen such as mildew. Obviously, TB is a result of cross-infection by many microorganisms. Therefore, it is too absolute for thinking

that just mycobacteria caused this infective disease, without much clinic proof. Since it is a cross-infection we cannot deal it with just a simple therapy.

Anti-TB pharmacy used in the whole body to cure the disease is the main method: Although this method has its' historic successful and cured many patients but it decreases the patients' immunity. We should think over and over for drug resistance, much drugs resistance, and all drug resistance more and more serious—how much pharmaceutical has sent to the local effect, it is the tuberculosis drug resistance or the injury of the body immunity. The practice told us that the traditional treatment has some problem [2].

It is certainty that take the united anti-TB pharmacy with a whole term the tuberculosis can be cured. The truth is that there are many malpractices for this therapy

- a. Great difficulty for insistence;
- b. Toxic side effects very serious, especially toward liver and kidneys;
- c. Lower immunity for patients is the important cause for that the disease difficult to cure;
- d. Drug resistance, multi-drug resistance and all drug resistance is the long term hard obstruction for treatment;
- e. Chemical treatment always leads to recur of the disease and recurrence rate is very high;
- f. Hard treatment TB case, secondary TB, Tuberculosis cavity increased the difficulty for curing.

These courses are caused not only by the insensitive for anti-TB drugs, TB bacterium gene mutation and drug resistance but also for that we did not recognize the micro-environment, not many useful method and inefficient crackdown for the disease.

Discoveries

Not only TB bacterium in the focus of a patient but many other microorganisms in focal infection.

Common therapy for the disease—taken the drug for the whole body cannot guarantee the effective blood concentration; every Mg tissue contains some μ g drugs. Our target treatment injection of Micro-injury can make couple mg drug in the focus, it is thousand times for common therapy.

Blood vessels around the TB focus are often narrowed and/or blocked. Microcirculation obstruction is found in the focus for blood circulation and lymphokinesis as well as microtracheole blocking. These courses caused general therapy for the disease can only make very few drugs reach the focus, and it is the insufficient concentration of the drugs caused drug resistance.

In the general TB treatment, it is just considered to kill or destroy the bacteria never considered of repair or construction, not to say the homeostasis. When we take great number of drugs to treat TB for a long time not only the tubercle bacillus might be killed the body immune system may also be damaged as well as the

flora imbalance may come to the body. So, it is not only effective for treatment of the disease but the loss outweighs the gain.

These finding told us that the body cannot control the tubercle bacillus. It is not loss of the cell immune, but is the special tuberculous cavity microenvironment prevented the T cells contact with macrophage so the tubercle bacillus developed in the macrophage [3].

To deal with these problems in the traditional therapy clinical practices are operation and modern interventional therapy. Operation includes pneumonectomy, pulmonary lobectomy, segmentectomy and wedge resection. All these operation is to deal with those difficult curing TB with pulmonary necrosis, it is not good selection for that it affects the patient greatly and costs much, hard to accept. Interventional therapy is just put single anti-TB drugs into the focus with bronchial cannal needing good skills. This complicated skill costs much and need to use many times drug sending and injured much (**Tables 1 and 2**). It is more than 10 years clinical summary of experience that Dr. Yushan Yang invented the new method of target treatment injection of Micro-injury to treat TB with his colleagues [4].

Target Treatment Injection of Micro-injury (TTIM)

Introduction to target treatment injection of micro-injury: Target treatment injection of Micro-injury is to use the compound anti-TB medicine injecting into the TB focus through skin to the lung according to Computerized Tomography (CT) dimensionally, then aide with nutrition, movement, body and mental treatment at the same time to cure the disease once a time. This is the best way to cure TB because it costs little, not much relapse and can cure all kinds of tuberculosis take pleuritis and pulmonary tuberculous cavity for example, it is just easy as to treat general disease for this special target treatment injection of Micro-injury. It is just simple operation and easy to study and control the skill.

Target treatment injection of Micro-injury interventional therapy introduction: (a) Materials-CT photo of patients' chest, ruler, caliper, syringe needle with many pinholes, 5 ml and 20 ml syringe, deep venipuncture disinfection package for tube placing patients. (b) Anesthesia: local anesthesia with potentiated anesthesia. (c) To calculate the distances between the focus to the presternal notch and to crest then find the nearest place to inject anti-TB drugs into the lung focus as we told above by local anesthesia or inject with medication by placing tube.

Case Analysis

Case 1: Mr. Chang^{xx}

Mr. Chang, male, 24 years, Gucheng town, Wuxiang County, Shanxi Province. In-patient No. 20470. It was found to recurrent cough with emptytysis for 3 years treated at local hospital noneffective. Symptom becomes more serious. On June 2009, the patient came to Shanxia hospital to treat the disease. It was found that down right lung is with a thick wall big cavity and with many disperse TB focus in both lungs by CT check (**Figures 1**), Smear positive (+), it is diagnosis as a secondly tuberculosis with emptytysis. The patient had no cough with emptytysis again, after inpatient treatment by TTIM 6 times, added 4.5 kg weight. CT showed the focus is fibrosis and the cavity is closed (**Figures 2**) the patient is cured to leave hospital.

Table 1 Comparison for the treatment of target treatment injection of micro-injury with traditional treatment.

Item	Traditional method	TTIM
Drugs used	Anti-TB drugs only	Anti-TB drugs; antibiotics; Tissue repairing drugs
Administration method	Taken orally, iv, im	Target treatment injection of micro-injury, direct to focus
Side effects	liver of kidney injury about 15%; anorexia 30%	No side effects
Healing time	Early patient: 9 months Secondly treatment: 2 years	Early patient: 1 months Secondly treatment: 2 months
	All drug resistance: no way	All drug resistance: 3 months
cure rate (effectiveness)	Early patient: 85%	Early patient: 100%
	Secondly treatment: 30%	Secondly treatment and all drug resistance: 98% effective; 95% curing
	All drug resistance:10%	
Cost	2-990,000 RMB	Everage: 1-20000 RMB
Failure or recurrence rate	55% or more	Less than 20%

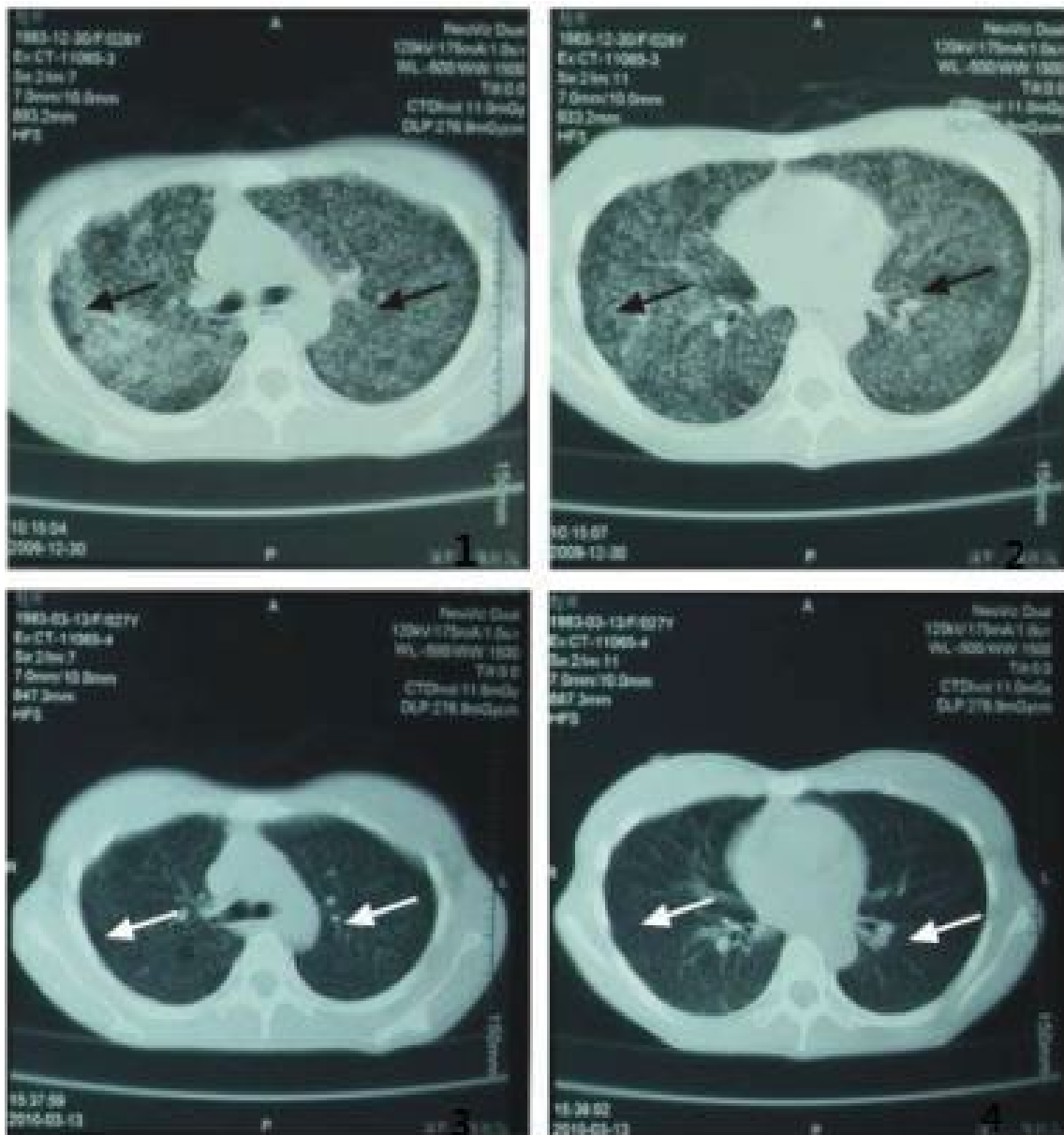


Figure 1 Down right lung is with a thick wall big cavity and with many disperse TB focus in both lungs by CT.

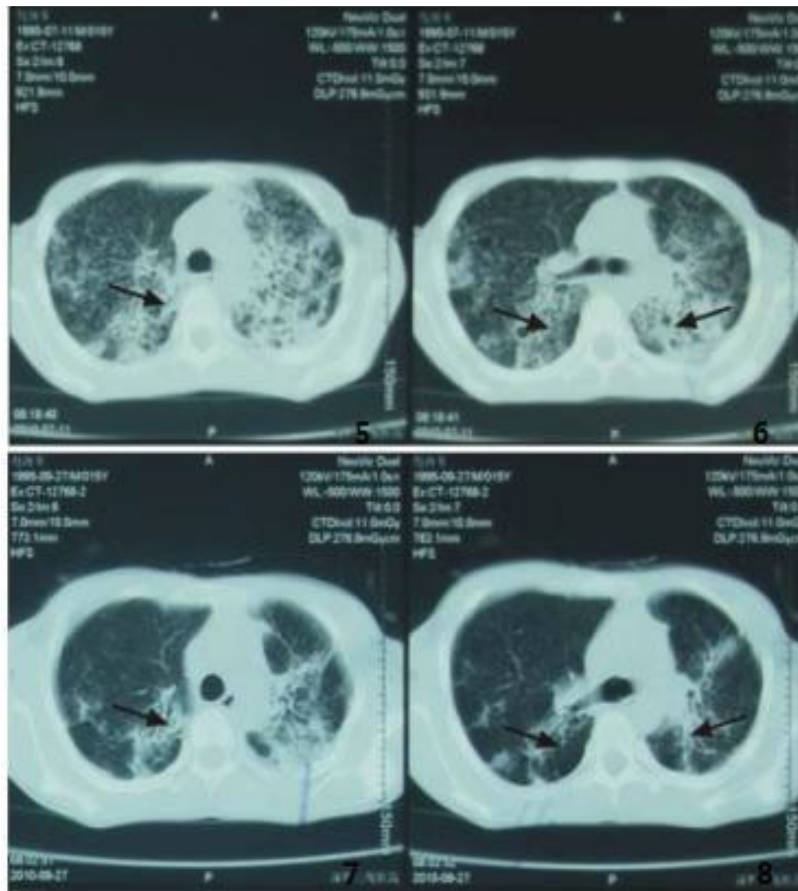


Figure 2 Smear positive (+), it is diagnosis as a secondly tuberculosis with emphysema.

Table 2 Comparison for the treatment of target treatment injection of micro-injury with other interventional therapy.

Item	Other therapy	Interventional TTIM
Drugs used	Anti-TB drugs only	Anti-TB drugs; antibiotics; Tissue repairing drugs
Administration method	Fiber-bronchoscope guiding	Target treatment injection of micro-injury, through skin and lung
	CT induced	
Operation time	1 h, Complicated, need more times drug introduce	10 min, very simple injection
Anesthesia	Very complex, need more injection, Painful to patient, injury	Local Anesthesia or with potentiated anesthesia
Damage	Radiation to doctors	No injury to patients and doctors
Cost	5000 RMB	2000 RMB

Conclusion

With TTIM technique TB can be cured as general disease mostly in not more than 3 months and it takes even less than a month for early stage of TB patient to be cured with the skill. Most of

the patients or doctors do not believe it but it is true we cured thousands of patients with very little relapse so we hope this technique can be made more widespread all over the world. More TB patients can be treated with this advanced method and get recovery the white plague.

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