

Comparison of traditional and modern medicine in TB Treatment

Z. Kamali, S. Tarverdi*, Z. Afzalan, N.S. Shariat Nabavi

Abstract:

Background and Purpose: It is believed that tuberculosis has been killing human beings for over 4000 years. After developing powerful drugs, scientists imagined it would be eradicated; but emerge of drug resistant strains changed the result. Thus the main aim of this study is to compare traditional and modern medicine in order to achieve new effective drugs on the basis of traditional medicine and natural origin.

Methods and Materials: This is a descriptive library study. The majority of references was searched and studied by the "comprehensive medicine software". Then the most recommended drugs pharmacology is explained according to traditional medicine researches. Either modern medicine drugs for TB treatment, in recent articles or other resources, are reviewed. For a better understanding of drugs mechanisms, structure and metabolism of mycobacterium is discussed.

Results: the most recommended drug in Islamic Iranian traditional medicine is garlic and donkey milk respectively. The garlic effective material, Allicine, targets many pathways in causing bacterium, and fortunately doesn't have serious side effects. Some of the most important drugs of modern medicine for TB treatment are Isoniazid, Rifampicin, Streptomycin and Ethambutol. Which all of them target a limited part of bacterium in addition to dangerous toxicities.

Conclusion: according to the drugs mechanisms, it's a short way for bacterium to gain resistance against modern medicine drugs, by changing one pathway or target after a simple mutation. In comparison when facing with the natural drug, garlic, which targets multiple pathways simultaneously, it loses to survive. Finally comparing side effects, suggests designing of effective and less side effect drugs, by combining traditional and modern medicine.

Keywords: Mycobacterium TB, herbal treatment of TB, multidrug resistant TB, allicin, traditional medicine.

Corresponding Author: m_tarverdi71@yahoo.com