MEDICINAL PLANTS USED TO CURE TUBERCULOSIS IN RAGHURAJ NGAR SATNA (M.P.)

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***Abstract*: Tuberculosis (TB) is principally a disease of poverty, with 95 per cent of cases and 98 per cent of deaths occurring in developing countries. Tuberculosis is a bacterial infection caused mainly by *Mycobacterium tuberculosis* (MTB). TB is the most common cause of death due to a single infectious agent worldwide in adults. It is a disease that has affected mankind since ancient times. It is contagious disease tuberculosis from very ancient times. Anti-TB allopathic medications have been prescribed to control symptoms of this disease but results into side effects like hepatitis, hypersensitivity reactions, nausea, vomiting *etc*. The use of herbal medicine becoming popular due to toxicity and side effects of allopathic medicines. Medicinal plants from Ayurveda (Indian traditional medicine system) and from foreign origin have been successfully used to treat TB. The aim of this study is to highlight the work on anti-tubercular plants. The present paper involves various plant used in drugs responsible for anti-tubercular activity.**

***Keywords*: Ethnomedicine, tuberculosis, plant, ayurveda.**

INTRODUCTION

Tuberculosis (TB), an infectious deadly disease of worldwide occurrence is caused by various species of Mycobacterium, especially Mycobacterium tuberculosis and its treatment is one of the most severe challenges at the global level (Grange & Zunla 2002). India has a large burden, of the world's tuberculosis patients as this developing country can ill afford, with an estimated economic loss of US$ 43 billion and 100 US $ annually lost directly due to disease (Udwadia *et al*. 2012, WHO 2013). Tuberculosis infection is in rise in India, hence it's important to prevent spreading rapidly by help of reputed physician than to follow complications (Udwadia *et al.* 2012, Sharma *et al.* 2012). India is a high TB burden country contributing to 26 per cent of global TB burden (WHO 2006). In 2008, nearly 2 million cases were reported in India and 2.76 lacks of deaths are reported every year of this disease (WHO 2009). The WHO reports in 2012 states that, there were almost 9 million new cases in 2011 and 1.4 million TB deaths (WHO 2013). Tuberculosis disproportionately affects the poor as things like crowded living, poor ventilation, malnutrition all makes individuals more susceptible. This is despite the availability of treatment that will cure most cases of TB. WHO reports of 2012 states that, 9 million people worldwide became sick with TB disease, most of whom (80%) live in one of the 22 high burden countries for TB (WHO 2009, WHO 2012, WHO 2013). Tuberculosis is a respiratory disorder which is passed to other people through coughing and sneezing over a period of time under unsanitary conditions. The disease is caused by bacterium Mycobacterium tuberculosis. This bacterium is passed through fine spray of water vapors expelled when a person coughs or sneezes, if proper ventilation not exists in the system. Since ancient times, there have been references to TB or illnesses resembling TB from several parts of the world from many civilizations. In the ancient Indian scriptures, *The Vedas*, TB was referred to as *Yakshma* (meaning wasting disease). Tuberculosis is an age-old contagious disease which often leads to fatality if not treated properly. As soon as the immune system gets weakened symptoms of horrible cough extending for a period of more than 3–4 weeks followed with chest pain, blood or sputum when coughing are observed. In acute and sub-acute cases patient gets fatigue, reduced weight, loss of appetite, high fever, chills and night sweatiness is observed. The present study focuses on use of home an herbal remedies, use of plants and their parts as prevalent in Raghuraj nagar tehsil of Madhya Pradesh. Mycobacterium tuberculosis is spread by small airborne droplets called droplet nuclei, generated by the coughing, sneezing, talking, or singing of a person with pulmonary or laryngeal Tuberculosis. Transmission mode can be inhalation, ingestion, inoculation, and transplacental route. These minuscule droplets can remain are-borne for minutes to hours after expectoration. Introduction of *M. tuberculosis* into the lungs lead to infection of the respiratory system. Anti TB allopathic drugs have been prescribed to control symptoms of this disease but they results into side effects like hepatitis, hypersensitivity reactions, nausea, vomiting etc. this problem has become more serious as Mycobacterium tuberculosis developed resistance against anti-TB drugs.

METHEDOLOGY

Raghuraj Nagar Tehsil lies in Sohawal block of Satna District, Madhya Pradesh. It is between N24.600507 and 80.832243 longitudes and total area of Raghuraj Nagar 729.23sq.km. Raghuraj Nagar Tehsil comprises of 236 villages. The total population of study area is 504,183. The majority of the population living here is rural. The main rural communities of area are Kol, Gond, Khairwar and Mawasi etc. Several field trips were conducted in different villages for the data collection in the selected study site. Survey method was used to get inquiry about the treatment of tuberculosis disease.

This study was carried out by interviewing respondents in different remote sites. The respondents were old age women, men, and healers themselves and had knowledge on the medicinal use of the plants for the said purpose.

RESULT & DISCUSION

In the present study total of 10 plants of 8 families were identified. For each species the botanical name, family name, plant part used to cure disease, and usage were recorded and given inTable-1.

Table 1: List of plants used in tuberculosis & other description

s. no	Scientific name	Local name	Family	Part uses	How to use
1.	*Abelmoschus esculentus*	Muskdana, bhindi	Malvacea	Leaves or root	3-5 gms of leaf or root powder is orally administered with warm water empty stomach 5-6 times a day, for a period of 5-6 months. The dose is even recommended for 2-3 months after cure as bacteria may be in dormant state.
2.	*Adhatoda vasica nees*	Adusa	Acanthacea	Leaves or fruit	4-5 gms of leaf or fruit powder is orally administered twice a day first empty stomach before lunch with warm water and 5 hour after meals and before dinner for a period of 5-6 months.
3.	*Cannabis sativa*	Bhang	Cannabaceae	Leaves	Leaves macerated in warm water for 24 hours and one cup of Decoction taken orally thrice a day.
4.	*Carica papaya*	Papita	Caricaceae	Leaves	Leaves burned in a hut and smoke Inhaled twice a day.
5.	*Citrus lemon*	Neebu	Rutaceae	Leaves	Crushed leaves, wrapped in newspaper and smoked thrice a day
6.	*Eucalyptus camaldulensis*	Neelgiri	Myrtaceae	Leaves , roots	Cooked for 5-20 minutes and one cup of extract taken orally thrice a Day.
7.	*Ficus carica*	Anjeer	Moraceae	Bark	Cooked for 10 minutes and one cup of extract taken orally thrice a day
8.	*Mentha*	Pudina	Lamiaceae	Leaves	Leaves wrapped and smoked twice A day.
9.	*Ocimum basilium*	Van tulsi	Lamiaceae	Whole plant	1-2 gms of leaves, twigs, flowers, fruits (whole plants) is boiled with 200 ml of water for 15-20 minutes. The plant is mashed and juice is extracted filtered and stored in cool place. This decoction is orally administered 5-6 times a day for period of 5-6 months.
10.	*Zanthoxylum*	Tejphal	Rutacea	Toot	Burned in a hut and smoke inhaled Twice a day.


Cannabis sativa


Adhatoda vasica nees


Abelmoschus esculentus


Carica papaya


Citrus lemon


Zanthoxylum


Ficus carica


Ocimum basilium


Eucalyptus camaldulensis

Source: internet

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