

Natural perspective for Management of drug resistant Tuberculosis: A Review

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Abstract: Tuberculosis is a serious health problem in many regions of the world, especially in developing countries. Globally around 2 billion people are suffering from Mycobacterium tuberculosis and every year at approximate 10 million people developed TB disease and 1.3 million deaths. Worldwide approx.160684 cases of MDR/RR-TB were identified. Treatment of TB is a most serious challenge. Major problem of long-term use of existing anti –TB drugs are drug resistance and adverse effects. Drug resistant tuberculosis is widespread and is now a threat to tuberculosis control programme in many countries. Natural products derived from medicinal plants may play a significant role in discovery of new anti-TB drugs. Plants and their secondary metabolites include alkaloids, glycosides, tannins, phenolics, xanthenes, quinones, sterols and triterpenoids are reported to have anti-tubercular activity comparable to the existing anti-tubercular drugs. Some of the Phyto molecules and plant extracts were found to be synergistically effective with existing anti TB drugs. Ayurvedic formulations have a significant role in the management of tuberculosis. They act as an adjuvant therapy and bioavailability enhancers. This review demonstrates that Plants, Secondary metabolites and Ayurvedic formulations have potential to cure tuberculosis, drug resistance tuberculosis and minimize adverse effects. They can be used as an alternative treatment for tuberculosis.

Key words: Mycobacterium tuberculosis Drug resistance Medicinal Plants Secondary metabolites Phytochemicals

Link: <https://rjptonline.org/AbstractView.aspx?PID=2020-13-8-81>