

A Review on the Phytochemistry and Pharmacology of Genus *Tephrosia*

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Abstract

The plants of genus *Tephrosia* of family *Leguminosae* are widely distributed in many tropical and subtropical countries of the world and have been used in folk medicine for the treatment of large number of diseases. The importance of this genus is similar to that of other therapeutically renowned genera. This review includes the chemical studies on different species mainly the isolation and identification of flavonoids, rotenoids and study of activity of some isolated compounds and also includes different pharmacological activities like antioxidant, antimicrobial, anticancer, antiplasmodial, anti-inflammatory, larvicidal and toxicity studies of extracts and fractions.

Keywords: *Tephrosia*; Flavonoids; Rotenoids; Phytochemistry; Pharmacology; Activity.

Introduction

Plants have been used for the treatment of diseases from centuries. Natural product chemistry, especially phytochemistry, has become a topic of interest for most of the researchers due to the advantages of the plant derived medicinal compounds over the traditional ways of using herbal plants. Ethnopharmacology plays an important role in the discovery of new biologically active compounds. The process usually starts with searching of useful plants from different records to the development of methods for the industrial production of drugs (Rout et al., 2009; Farnsworth et al., 1985; Koehn and Carter, 2005). According to World Health Organization (WHO) more than 80% of the world's population uses plants for the treatment of their diseases (Calixto et al., 1998; Duraipandiyani et al., 2006).

The genus *Tephrosia* belongs to the family *Leguminosae* and subfamily Papilionaceae. There are approximately 400 species included in this genus. The plants in this genus are widely distributed in tropical, sub-tropical and arid regions of the world (Willis, 1973; Al-