

## **Dillenia species: a review of the traditional uses, active constituents and pharmacological properties from pre-clinical studies**

### **Abstract**

Context: *Dillenia* (Dilleniaceae) is a genus of about 100 species of flowering plants in tropical and subtropical trees of Southern Asia, Australasia, and the Indian Ocean Islands. Until now, only eight *Dillenia* species have been reported to be used traditionally in different countries for various medical purposes. Out of eight species, *D. pentagyna* (Roxb), *D. indica* (Linn.) and *D. suffruticosa* (Griffith Ex. Hook. F. & Thomson Martelli) have been reported to be used to treat cancerous growth. Objective: The present review explored and provided information on the therapeutic potential of *Dillenia* species. Methods: Comprehensive and relevant literature on the therapeutic potential of *Dillenia* species was gathered through electronic databases including Google Scholar, Scopus, PubMed, and books, without limiting the dates of publication. Results and conclusion: The review demonstrated that only a few *Dillenia* species have been proven scientifically for their therapeutic potential in pre-clinical studies, including *D. pentagyna*, *D. indica*, *D. papuana* (Martelli), *D. meliosmifolia* (Hook. F. Ex. Thomson) and *D. suffruticosa* (Griffith Ex Hook. F. & Thomson). A few species of *Dillenia* have undergone isolation and characterization of compounds with lupeol and betulinic acids having tremendous pharmacological potential. *Dillenia* species warrant further studies on their therapeutic potential, which may eventually lead to the development of new drug candidates for treatment of various diseases.

**Keyword:** Active constituent(s); Dilleniaceae; Ethnomedicinal; Pharmacological