



Standardization and Preclinical Studies on 'Kakadshringi': Leaf Galls Used in Ayurvedic System of Medicine

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The growing demand of crude drugs (raw materials and their products) by populations is forcing to develop standards for quality control and to evaluate the health climes. Much more studies in this aspect have been done on plant originated crude drugs/raw materials. Meager evaluation is available considering animal originated raw materials. Use of insect galls as medicine is not new but evaluation of such materials is unique. The ethnobotanical and Ayurvedic literature indicates that 'Kakadshringi' leaf galls are used for the treatment of diarrhoea. The leaf galls occurring on botanically three different plant species viz. *Pistacia integerrima* Stew. ex Brindis, *Terminalia chebula* Retz., and *Garuga pinnata* Roxb. are commerced in trade. These samples were standardized using pharmacognostic and phytochemical parameters to establish identification markers. To investigate the text clime, antidiarrheal activity was evaluated using animal modal. The result suggested that ethanol extract of *P. integerrima* and loperamide, a standard antidiarrheal drug showed significant reduction in fecal output in castor oil and magnesium sulphate induced diarrhoea and castor oil induced intraluminal fluid accumulation. Also it inhibited dose dependently (100-500 mg/kg) the intestinal propulsion of charcoal meal in normal and barium chloride induced changes in gastrointestinal tract. The ethanol extract of *P. integerrima* has antidiarrhoeal, antisecretory and antipropulsive activities and it may be due to their high phenolic and tannin content. Our studies indicated that *P. integerrima* can be equated to 'Kakadshringi' and its indication for the treatment of diarrhoea.