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Objective: Numbers of alternative therapies practiced around the globe are principally based on herbs. The need of present day is validation of the traditional claims of these plants in order to reason them in the modern context. Present study deals with standardization of the plants (*Albizzia lebbeck*, *Euphorbia hirta* and *Sphaeranthus indicus*) by modern analytical techniques and evaluation of Antiasthmatic activity using various models.

Material and methods: Pharmacognostical study of all the three plants done using different parameters like macroscopy, microscopy, ash value, extractive value, phytochemical screening (chemical tests and TLC). Markers were isolated from bark of *Albizzia lebbeck*, aerial parts of *Euphorbia hirta* and *Sphaeranthus indicus*. Standardization of *Albizzia lebbeck*, *Euphorbia hirta* was done using phytomarker betulinic acid and quercitrin respectively by HPTLC method while *Sphaeranthus indicus* was standardized by GC method using β-caryophyllene as a phytomarker. Alcoholic extract of each drug was evaluated for mast cell degranulation by compound 48/80 and heterologus passive cutaneous anaphylaxis models. Churna, a formulation from these three plants *Albizzia lebbeck*, *Euphorbia hirta*, *Sphaeranthus indicus* (4:6:1) was developed and its dried alcoholic extract was evaluated for egg albumin induced asthma using Guinea pigs.

Results: Results obtained for pharmacognosy and standardization are promising and are elaborated in text. Results of all the models suggest that individual drug as well as developed formulation having protective effect in asthma therapy.