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Study efficacy of Krishnavajrabhraka Bhasma in chronic asthma

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Introduction: Chronic asthma is chronic airway inflammation leading to hyper-responsiveness of tracheo-bronchial tree. Steroids, being anti-inflammatory, are the mainstay of the treatment but have multiple adverse reactions. Krishnavajrabhraka Bhasma (KVB) is the herbo-mineral formulation claimed to be effective in chronic asthma. Present study was carried out to assess anti-asthmatic activity of KVB.

Aim: To evaluate the efficacy of Krishnavajrabhraka Bhasma (KVB) in animal models of chronic bronchial asthma.

Methods: After acute, sub-acute and chronic toxicity studies, KVB was evaluated for efficacy in animal models of chronic asthma. In all the experiments, 30 animals were divided into 5 groups and accordingly treatment was given: Vehicle (water), vehicle (honey water), Low dose KVB, High dose KVB and Prednisolone. Expt.I (Bronchial hyper-reactivity): On day 1, G. pigs were sensitized with egg albumin (EA). From 22nd day, they were treated for 21 days. At the end, pre-convulsive time was noted after EA challenge. Expt.II (Bronchial remodeling): After repeated challenges with EA aerosol for 4 weeks, rats were treated for 15 days. After rechallenge, broncho-alveolar lavage fluid was collected for analysis. Animals were sacrificed & lungs removed for histopathology.

Results: Expt.I: KVB in high dose showed significant ($p < 0.01$) increase in pre-convulsive time when compared to control groups. Expt.II: KVB significantly reduced ($p < 0.01$) total eosinophil count in lavage fluid & also bronchial smooth muscle thickness compared to control. Results in both these experiments were comparable to Prednisolone.

Conclusion: KVB was found to be effective in chronic asthma.

Biography

Gourav Bharat Deshmane is currently pursuing his PhD from Bharati Vidyapeeth Deemed University Medical College. He has keen interest in Ayurvedic medicine and has worked in depth on Krishnavajrabhraka Bhasma (KVB). He has been working on this molecule for last four years and is presently trying to find out whether the reversal of bronchiolar remodeling by KVB is by stimulation of stem cells in respiratory system. He has two publications to his credit and he is also interested in statistics.

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