Perspective of Homoeopathy in Modulation of Absolute Eosinophil Count and Pulmonary Function Test in Bronchial Asthma - A Research Study
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Abstract
Allergic bronchial asthma is a respiratory disease which is triggered by allergens with evidence of increased level of absolute eosinophil count with decreased levels of FEV1, FVC and FVC/FEV1. 40 diagnosed patients of bronchial asthma with increased levels of absolute eosinophil count and reduced pulmonary function were selected for the study. The study period was between 01.03.2013 and 30.09.2014. Swel lab 920 EO+ is used for confirmation of absolute eosinophil count and Helios 401 spirometer used for assessing FEV1, FVC and FVC/FEV1 levels. Kruskal Wallis test and Wilcoxon signed rank test were used for the statistical analysis. In this study it was found that homoeopathic medicines are having capacity to reduce the levels of absolute eosinophil count and improve the lung function among bronchial asthma patients.

Key words: Allergic bronchial asthma; Absolute eosinophil count; Pulmonary function test; Forced expiratory volume in 1 sec; Forced vital capacity.

Background
It is observed that allergic diseases have become a major public health problem over the past few decades.1 Bronchial asthma is one of the commonest type of allergic manifestation now a days. Bronchial asthma is defined as the presence of intermittent symptoms such as cough, wheezing and difficulty in breathing with tightness of chest.2 Eosinophils are important effector cells in asthma and allergic disease and it is found in asthmatic airways. The absolute eosinophil count refers to the number of circulating eosinophils in the peripheral blood in cells/microL. It has a main role in allergic manifestation and in phagocytosis. Normal levels of absolute eosinophil count ranges from 40-440/mm3 of total white cells.3 These are the cells which are responsible for inflammatory and allergic changes like broncho constriction in asthma. There is production of thick, tenacious mucuos plugs containing fibrin and eosinophils, which obstruct the airways due to impaired mucociliary transport.4 Damage of tissues can occur when eosinophil count increases more than 1500/microL with infiltration of eosinophils into the trachea and bronchial tree.

Pulmonary function tests (PFT) are one of the important investigations in the treatment of patients with bronchial asthma. Spirometric changes which are usually used to assess the bronchial asthma are FEV1, FVC and FEV1/FVC ratio.

The major presenting features in patients with asthma are episodes of wheezing, chest tightness, dyspnea and cough. Asthma is most often worse at night usually in early morning.
At the beginning of an asthmatic attack, wheezing usually occurs only while exhaling, whereas during severity, wheezing may be heard in both inhalation and exhalation. Homoeopathy is a system of medicine which is based on principle of “Similia Similibus Curenter”. It is the unique system of medicine which treats the patients on the basis of individualization which takes into consideration of spiritual, mental and physical levels of the patient.

Various researches and clinical trials are conducted to discover advanced therapies to reduce the absolute eosinophil count and improving pulmonary functions in asthmatic individuals. Some new awareness programs also conducted to know the effectiveness and safety among new advanced treatment methods. These programs aimed to reduce the absolute eosinophil count level, improving the lung function and control the symptoms of the asthmatic individuals. On this background we intended to verify the role of homoeopathic medicines in reducing the absolute eosinophil count and improving the pulmonary function in bronchial asthma patients.