

CORRELATION OF INDUCED SPUTUM EOSINOPHIL AND ABSOLUTE EOSINOPHIL COUNT IN ASSESSING THE CLINICAL SEVERITY OF BRONCHIAL ASTHMA

ABSTRACT

BACKGROUND

Asthma is a chronic inflammatory disorder of the airway. Eosinophil being a marker of airway inflammation, can serve as a tool for assessing severity and response to treatment in asthma patients. The correlation of clinical assessment with various markers of airway inflammation in asthma is not well established in the Indian population. Present study is designed to correlate induced sputum eosinophil and blood eosinophil count in assessing the clinical severity in bronchial asthma.

AIM

To study the correlation of sputum eosinophil count and absolute blood eosinophil count in assessing the clinical severity of asthma.

METHODS

It was a prospective study carried out between June 2017 to June 2018. Parameters were recorded using pre-structured proforma. Data analysed using SPSS software version 21.0.

RESULTS

Total 101 asthmatics were selected, out of them 58% patients had severe asthma, 24% patients had moderate asthma, and 19% patients had mild asthma. In our study, prevalence of asthma is more in middle age group with equal sex ratio. Dust and seasonal allergens are the most common triggering factors. Beedi workers were more when compared to other occupations. In our study, risk factors for severe asthma was female sex, environment dust exposure, smoking, who had a positive family history of asthma, long duration of symptoms and rhinosinusitis co-morbidity. There was a significant correlation of induced sputum eosinophil and absolute eosinophil count with severe persistent asthma.

CONCLUSION

Assessment of eosinophil count in sputum and blood are simple and inexpensive method that can show a direct measurement of airway inflammation. Thus it can help to identify specific phenotypes in asthmatic patients who are more responsive to steroids, which needs to be demonstrated in future studies. It could be the preferred method in routine practice in monitoring airway inflammation and guiding management.