INTRODUCTION

AND

AIM OF THE WORK

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Inoue et al. , (1989 a) described endothelin (ET) as a recently discovered circulating polypeptide consisting of 21 amino acids. They also described three isoforms to be identified for endothelin by the following names, ET (1,2 and 3).

Endothelial cells produce exclusively ET- 1 ***(Saito et al., 1989)*** . ET – 1 produced has a profound and sustained contractile response ***(Yanagisawa et al., 1988)*** . This effect occurs through arising of the intracellular free Ca^{++} and increasing the inositol phosphate turnover ***(Marsden et al., 1989)***

Elevated plasma concentrations of endothelin have been reported in a variety of clinical conditions like in patients with acute renal failure ***(Firth et al., 1988)*** , subarachnoid hemorrhage ***(Masaoka et al., 1989)*** , myocardial infarction ***(Miyauchi et al., 1989)***, chronic renal failure , hypertension ***(Shichiri et al., 1990)*** and sepsis ***(Pittet et al., 1991)*** .

Endothelial cells of various origin synthesize endothelin . It is therefore likely that the bronchial smooth muscle and epithelial cells, which are the predominant cell types constituting airway also synthesize this peptide ***(Mattoli et al., 1990).***

Airway epithelium when exposed to allergens or toxic substance , can release broncho-constrictive substances, one of these substunces may be the potent broncho-constrictive peptide, endothelin-1 ***(Frossard et al., 1989).*** Since this peptide produced a powerful broncho-constriction and development of bronchial asthma . ***(Springall et al., 1991)***

Aim of the Work :

The aim of the present work is to study plasma and broncho- alveolar lavage fluid endothelin –1 level in patients with bronchial asthma and chronic obstructive pulmonary disease , in a trial to correlate the level of endothelin to the pathogensis of obstructive airway diseases.