

INTRODUCTION

Asthma is one of the most common respiratory diseases in children. A person with asthma has extra sensitive bronchioles (the tubes that carry air to the lung) meaning they become easily inflamed and swollen when exposed to certain triggers .When the bronchioles restrict air flow breathing become difficult (*Burrow, et al 2002*).

Asthma attacks all age groups but often starts in childhood. This disease is characterized by recurrent attacks of breathlessness, wheezing and coughs which vary in severity and frequency from person to another (*Thompson, 2002*)

During the last decade the prevalence of asthma has increased and increasing this condition makes it necessary for physicians to know much more about the diagnosis and follow up of asthma (*sekiya, et al 2000*).

In young children, there is difficulty in diagnosis and follow up of asthma because asthma developed before they are aged 5 years and in more than half asthma developed before they are aged 3 years (*Bonecchi R, et al 2003*).

Introduction

So we are searching for a parameter that can help us in diagnosis and follow up of asthmatic children.

- TARC in the recent studies is a useful inflammatory marker for chronic asthma .which induced selective migration of TH2 lymphocytes in vitro.
- The expression of CCR4 on TH2 lymphocytes and CCR4 specific ligand TARC on air way epithelial cells were strongly up regulated in end bronchial biopsies from asthmatic patient following allergen challenge (*ImaiT,et al 2000*).
- The gene encoding the TARC produces a basic protein of 71 amino acids.
- It acts on the chemokine receptor 4 which is expressed on peripheral blood and most likely produced by monocytes and dendrite cells.