

Introduction

Health, happiness, independence, and productivity are basic human desires. For children, this means achieving normal growth and development, acquiring a sense of accomplishment, developing an identity, and initiating independence. One conditioning factor that greatly influences developmental outcomes and quality of life is chronic illness (*Safwat et al., 2010*).

Asthma is a chronic inflammatory disease characterized by airway inflammation, hyperresponsiveness, reversible obstruction and later remodeling. Many cells and many mediators such as cytokines, chemokines and adhesion molecules are involved in the pathogenesis of asthma (*Mustafa et al., 2009*).

Asthma in childhood is a heterogeneous disease with different phenotypes and variable clinical manifestations, which depend on the age, gender, genetic background, and environmental influences of the patients (*Chung, 2011*).

The SERPIN PAI-1 is the major plasminogen activator inhibitor in humans. Its physiological function is, however, not only inhibition of intravascular fibrinolysis but it is also involved in regulation of cell adhesion, migration, and invasion. Pathologies related to variations in PAI-1 levels include vascular occlusive diseases, fibrin deposition in lungs and kidneys and malignancies. Intervention with PAI-1 function might be an important future tool for additional therapeutic strategies in such diseases (*Zhongcai et al., 2010*).