

INTRODUCTION

Lung cancer is a growing worldwide problem, especially in developing countries, in the past there were few good options for the early detection, prevention or treatment of lung cancer, recently there have been many advances in the detection, staging, prevention and treatment (**Bunn, 2000**).

Tumor markers are substances produced by tumor cells that are released into the blood stream where they can be measured, they may be helpful in screening and in the early diagnosis of cancer, in assessment of the extent of disease and in response to treatment., for example Neurone specific enolase, Creatine phosphokinase BB and Carcinoembryonic antigen (**Souhami et al., 1991**).

Carcinoembryonic antigen (CEA) is oncofetal antigen that is normally found in embryonic and fetal gut sometimes produced by malignant cells (**Villena et al., 1996**).

The upper limit of normal plasma CEA level is stated to be 2.8 ng/ml examples of malignant conditions that can be associated with increased plasma CEA are lung cancer, GIT cancer and bladder cancer (**Salama et al., 1998**).

Albumin is the most abundant protein in plasma usually constituting up to two-thirds of total plasma proteins, it contributes to about 80% of the plasma colloid osmotic pressure (**Mc Pherson & Pincus, 2007**).

It is known that there is continuous movement of albumin from plasma to bronchial secretions and during episodes of lung inflammation the albumin movement from plasma to secretions increases (**Wewers et al., 1987**).

When there is a malignancy even at an early stage, angiogenesis occurs by proliferation of vascular endothelial growth factor which contributes to early spread to distant sites as well as increased capillary permeability and hemorrhagic tumor necrosis (**Beinert et al., 1999**).