

## ABSTRACT

The oxidative stress is considered to be involved in the pathophysiology of cancers. Reactive oxygen species (ROS) are important in the promotion of cells to neoplastic growth. In the current study was studied the oxidative stress in patients with lung cancer and compared with normal persons by evaluation of the level of plasma total antioxidant capacity (by ABTS, FRAP assay), superoxide anion radical scavenging and DPPH anion radical scavenging activity in patients with lung cancer. Significantly lower plasma levels of ABTS ( $8.51\text{mM}\pm 0.07$ ,  $16.51\text{mM}\pm 2.03$ ) and FRAP ( $5.67\text{mg/L}\pm 0.67$ ,  $12.43\text{mg/L}\pm 0.71$ ) were detected in patients with lung cancer in comparison to the healthy volunteers. Superoxide anion radical scavenging activity of patients with lung cancer was found to be significant lower than that of the normals ( $51.4\%\pm 4.68$ ,  $67.78\%\pm 5.03$ ). DPPH anion radical scavenging activity of lung cancer patients were also found to be significant lower than that of the normals ( $9.8\%\pm 0.03$ ,  $47.6\%\pm 4.08$ ). It is probable that oxidative damage might have an important role for lung cancer development, therefore, strengthening the antioxidant capacity might probably prevent this malignant transformation.