

**ANALYSIS OF TOTAL ANTIOXIDANT ABILITY OF PLASMA IN  
CHRONIC OBSTRUCTIVE PULMONARY  
DISEASE (COPD) PATIENTS**

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**ABSTRACT**

The present study was carried out to evaluate the total antioxidant ability of plasma in COPD patients and healthy matched controls. A total of 200 subjects were studied out of which 110 were COPD patients and 90 controls. Total antioxidant ability of plasma was measured by the FRAP (ferric reducing ability of plasma) assay. The significance difference ( $p > 0.001$ ) was observed in the FRAP value of COPD patients ( $392.280 \pm 06.602$ ) and controls ( $765.580 \pm 7.571$ ). A significance difference ( $p > 0.001$ ) was observed in the mean FRAP value of male, female, smokers and non smokers of COPD patients when compared with controls. The total antioxidant value of plasma was lower in severe COPD patients  $364.450 \pm 6.383$  as compared to the moderate COPD patients  $434.020 \pm 10.752$  and significantly different at ( $p > 0.001$ ).

**KEYWORDS:** Antioxidant, COPD, Plasma, FRAP