

ERYTHROCYTE SOD ACTIVITY AND THE RISK OF ESSENTIAL HYPERTENSION

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Received April 23, 2007 and Accepted July 30, 2007

ABSTRACT : In the past several years much interest has arisen over the involvement of free radical metabolism in the disturbance in endothelial or intimal cells of blood vessels, which play an important role in the pathogenesis of essential hypertension (HT). Although limited information is available on the activity of antioxidant enzyme erythrocyte superoxide dismutase (SOD) and its relation with blood pressure in patients with HT, alteration in their activity with severity of disease is still obscure. Erythrocyte SOD activity was found to be significantly low in each patient group as compared to control ($P < 0.001$). These activities were also low among three groups of essential hypertension. It has been observed that erythrocyte SOD activity may be an effective marker of oxidative stress in different stages of essential hypertension and its related complications.

Key Words : Erythrocyte, superoxide dismutase (SOD), essential hypertension (HT), superoxide anion and reactive oxygen species (ROS), Nitric oxide (NO), Standard deviation (SD).