INTRODUCTION
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AIM OF THE WORK

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Introduction:

Recent attention has been focused on the role of oxygen free radicals in the development of various diseases (Fiorillo et al., 1998).

Free radicals are highly reactive molecules bearing unpaired electron in their outer orbital (Halliwell and Gutteridge, 1990). The most important oxygen free radical (OFR) are superoxide radicals, hydrogen peroxide, hydroxyl radical and singlet oxygen (Klahr, 1997).

There are large numbers of physiologic and pathologic sources of OFR (Klara et al., 1994). The imbalance between production of OFR and antioxidant defense result in oxidative stress, which leads deleterious effect (Sandor et al., 1997).

Increased in local production of reactive oxygen species and reduction in antioxidant enzymes activities are responsible for enhanced oxidant stress in many renal diseases e.g. glomerulonephritis, lupus nephropathy, ischemic acute renal failure and chemically induced renal papillary necrosis (Hideki et al., 1996).

Hassan et al., 1995 reported that antioxidant therapy with vitamin C, vitamin A, vitamin E has a protective effect against oxidative stress associated with uremia.

Antioxidants scavenge oxygen free radicals by preventing their formation or repairing damage they do (Halliwell, 1991).

Aim of the work:

This work is designed to study the oxidant stress and the state of some intrinsic antioxidant enzymes in some renal diseases, in order to shed light on its effect on the progression of these diseases and its relation to its complications.

Also we aim to elucidate the possible protective effect of therapeutic antioxidants on these diseases and their complications.