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LETTER

New and good radioprotectants

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INTRODUCTION

A good radioprotectant must be cheap, not reduce radiotherapy effectiveness while protecting the normal tissues. The most well-known radioprotectants are sulphuric compounds. (1). They are expensive and have many side effects which restrict their usage.

Cysteamine, thiol, cystamine and ethiol, are most known sulphurous compounds. The toxic effect of ethiol is relatively lower than others. Ethiol and its active metabolite WR-1065 decrease the radiotherapy related toxicity and secondary cancers (2). Superoxide dismutase (SOD) level reaches a maximum in 24 hours with WR-1065 treatment (1-3). L-Carnitene, alpha lipoic acid that sulphurous compounds and Vitamin E, Vitamin C are other especially nutrition based radiation protection ajents (4-7).

The breast has the most radiation related skin reaction organ risk on the body. For this reason most of the studies in the literature have been done in breast cancer patiens. The results of studies are not very homogenous but do offer important ideas (8-11).

The glutamine which one of the most important amino acids, propolis and its cafeic and phenetyl esters are other radioprotectants. Propolis is beneficial in skin burns resulting from radiation (12-14).

Oleuropein prevents the chromosome damage resulting from radiation (15). Pollen has some protective effects against X rays (16, 17).

Not enough work has been done with most of these agents. So I think it is necessary to give weight to the work to be done in these matters.

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