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LETTER TO THE EDITOR

Photolytic destruction of adriamycin

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A recent communication in this Journal (Tavoloni et al 1980) reported on the destruction of adriamycin by irradiation with fluorescent lights. In reference to anthracycline antibiotics, the authors stated, 'no photolytic studies on this group of compounds have been published'. However, the susceptibility of three anthracycline antibiotics (adriamycin, daunomycin and rubidazone) to irradiation by daylight fluorescent lights has been reported (Daugherty et al 1979).

The protective effect of fresh rat bile on adriamycin photodestruction was postulated to possibly be due to an effect of filtration of radiation by the yellow-green colour of the bile or to an interaction with the solvent or components of the solvent (Tavoloni et al 1980). Since we have observed the photodestruction of the drug to be prevented by the addition of the free radical scavenger,

butylated hydroxytoluene (BHT), and most commercial animal chow to contain BHT, which is involved in enterohepatic circulation in rats (Ladomery et al 1967), it is possible that the protective effect may have been partially due to the presence of BHT or its metabolites or some other free radical scavenging agent.

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