

(spin trapping/lipid peroxidation)

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duced by superoxide dismutase-inhibitable reduction of 30

Table 1. Oxygen consumption by endothelial cell suspensions

μ M succinoylated cytochrome *c*, monitored at 550 nm (ϵ_{max}
 $21 \text{ mM}^{-1}\text{cm}^{-1}$) according to the method of Kuthan et al.

nmol O_2 consumed $\cdot$
 $\text{min}^{-1} \text{mg}^{-1}$ of protein

An EPR spectrum characteristic of DMPO-OH (Fig. 1) yielding an autoxidizable semiquinone (25). Dicoumarol inhibition of the two-electron reduction of menadione by DT-diaphorase [NAD(P)H:(quinone-acceptor)oxidoreductase (EC 1.6.99.2): see ref. 25] diminishes extracellular superoxide might suggest that hydroxyl radical was produced by menadione-treated endothelial cells. However, this is probably not the case, since DMPO-OOH rapidly decomposes into

hydroxyl radical (21, 22). Approximately 3% of DMPO-OH hydroxynaphthalene available for extracellular diffusion and

arises via this latter pathway (22). Confirmation that DMPO-subsequent reduction of menadione to the semiquinone.

Table 2. Reduction of succinylated cytochrome c by endothelial

droxynanthalene available for extracellular diffusion (Table

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