

Abstract

THE IRRITANT EFFECTS OF TOBACCO SMOKE

In an effort to quantitate the irritant activities of tobacco smoke, we have used an enzyme histochemical technique to identify responsive alveolar cells. Using acid phosphatase and lactate dehydrogenase reactions, the cells identified are alveolar macrophages and Type II cells. It is found that during exposure to cigarette smoke the proportions of these cells in the lungs increase. Removal of the particulate phase by filtration, considerably reduces the alveolar response to smoke and studies with the electron microscope have shown that the activated cells following exposure to whole smoke, contain large globules of an electron dense material, as yet unidentified. This material does not appear with the purely gaseous irritants used as controls or with filtered smoke.

Presentation time - approx. 30 minutes

*D. Cunningham*

100111828