Are Cigarettes Sending the Immune System Up in Smoke?

September 23, 2014 By Benjamin Ryan

Smoking cigarettes appears to harm the immune systems of people with HIV who are on treatment for the virus and have a fully suppressed viral load. Studying a cross-section of four groups that either had HIV or did not and were either smokers or nonsmokers, the researchers found troubling evidence of dysregulated immune systems among the smokers.

“If we take infection as the speed of a train,” says the study’s lead author, Deshratn Asthana, PhD, an associate professor at the University of Miami Miller School of Medicine, “basically we are accelerating the speed of the train toward the end line.”

When compared with the nonsmokers, smokers had raised rates of CD4 and CD8 immune activation, in particular among those smokers living with HIV. Immune activation has been tied to faster HIV disease progression. When compared with the HIV-negative nonsmokers, those with HIV who smoked had higher levels of microbial translocation, an excess of which can lead to immune activation. The smokers had more evidence of immune exhaustion, which indicates that immune cells are essentially worn out from working too hard.

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http://beta.docker.poz.com/article/smoking-immune-activation-26213-7659