

Hep C compounds alcoholism's effect on brain volume

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(HealthDay)—Alcohol dependence has deleterious effects on frontal



cortical volumes that are compounded by hepatitis C virus (HCV) infection and drug dependence, according to a study published online March 14 in *JAMA Psychiatry*.

Edith V. Sullivan, Ph.D., from the Stanford University School of Medicine in California, and colleagues examined cortical volume deficits using 826 structural magnetic resonance images from 222 individuals with <u>alcohol dependence</u> and 199 age-matched control participants. Longitudinal data were available for 116 participants with alcoholism and 96 controls.

The researchers found that participants with <u>alcohol</u> dependence had volume deficits in frontal, temporal, parietal, cingulate, and insular cortices; the deficits were prominent in fontal subregions and were not dependent on sex. In the <u>frontal cortex</u> and precentral and superior gyri, accelerated aging occurred; this could not be attributed to the amount of alcohol consumed, which was greater in younger- versus older-onset participants with alcoholism. Smaller frontal volumes were seen for alcohol plus cocaine and alcohol plus opiate groups versus drugdependence-free alcoholism groups. Greater deficits were seen in those with versus those without HCV infection in frontal, precentral, superior, and orbital volumes; in uninfected participants with alcoholism, total frontal, insular, parietal, temporal, and precentral volume deficits persisted compared with control participants with known HCV status.

"We speculate that age-alcohol interactions notable in frontal cortex put older adults at heightened risk for age-associated neurocompromise even if alcohol misuse is initiated later in life," the authors write.

More information: <u>Abstract/Full Text</u>

Editorial (subscription or payment may be required)



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