

Antiretrovirals and Brain Impairment

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Intensifying antiretroviral therapy by adding dolutegravir and maraviroc did not improve neurocognitive function for people with HIV who were already taking a suppressive regimen, according to a recent study.

Serious cognitive dysfunction among people living with HIV is much less common now than it was before the advent of effective treatment in the mid-1990s. However, many HIV-positive people still experience more subtle impairment of thinking, attention and memory. Even people with an undetectable viral load may still have persistent HIV in various reservoir sites, including the brain.

Scott Letendre, MD, of the University of California San Diego, and colleagues evaluated treatment intensification in 191 people with viral suppression who had some degree of neurocognitive impairment at baseline. They were randomly assigned to either stay on their current regimen or add dolutegravir and maraviroc. These drugs were chosen because they cross the blood-brain barrier and reach therapeutic levels in the cerebrospinal fluid; maraviroc also has anti-inflammatory properties.

While treatment intensification was generally well tolerated, adding drugs did not have a notable effect on cognitive function. Total neurocognitive test scores, depression symptoms and daily functioning improved over time, but there were no significant differences between the two groups. Verbal memory and verbal learning scores did improve more in the group that added both dolutegravir and maraviroc.

These findings suggest that cognitive impairment is likely due to other causes besides ongoing HIV replication—for example, prior central nervous system injury, persistent inflammation or comorbidities, the study authors suggest.
