NEUROCOGNITIVE SCREENINGS FOR HIV-ASSOCIATED NEUROCOGNITIVE DISORDERS: AN UPDATE

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Synopsis: In HIV+ adults with long-term viral suppression and low comorbidities, HIV-associated neurocognitive disorders (HAND) persist in a mild form in 20%-45% relative to demographically comparable HIV- controls. Higher impairment rates are seen among HIV+ individuals with significant comorbidities (80%). The prevalence variation relates to the timing of ART initiation, length of clinically stable disease and viral suppression, HIV duration, nadir CD4, older age, and comprehensiveness of neuropsychological testing. Although "mild," such impairments can affect everyday functioning and quality of life.

Routine screening for HAND has been hampered by the limited availability of effective screening tools, concerns regarding the complexity of diagnosing HIV-related impairment in the context of various comorbidities, and a paucity of HAND-specific treatment options. However, there are three arguments in favor of screening. First, a greater number of comorbidities plus neurocognitive impairment in HIV+ persons conveys a worse neurological prognosis. Second, a HAND diagnosis is associated with less adherence, unemployment, and mortality. Third, with aging, controlled HIV and HAND may be risk factors for other types of dementia.

In Australia, we have proposed an algorithm that streamlines screening:
1. A 20-minute gold standard-validated screening of neurocognition, mood and everyday function is targeted towards patients at risk for HAND – risk is derived from a predictive mathematical model capable of handling many factors.
2. A positive screen triggers a neurology/neuropsychology review; a negative annual monitoring.
3. Ongoing cognitive health management includes:
    - Tailored evidence-based psychosocial and (exercise) behavioural interventions;
    - Modifiable age-related comorbidities health strategy implementation;
    - ART adjustment for CSF viral load escape or intensification is considered;
    - Specific care implementation if age-related dementia is detected.

Two new promising tablet-based screenings can be easily integrated to this proposed algorithm. The current international effort to revise the HAND diagnostic criteria will aim at facilitating the clinical translation of this proposed algorithm.

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