Unusual Presentations of Primary HIV-1 Infection

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Do you know which symptoms might warrant consideration of the acute retroviral syndrome?

Primary HIV-1 infection (PHI) has been estimated to manifest with a constellation of symptoms in about 33% of all newly infected persons. This constellation has been termed the acute retroviral syndrome (ARS). Recognition of this syndrome is critical, because it presents an excellent opportunity for early intervention when the HIV RNA copy number in plasma is often over 1 million copies/mL. However, there is nothing specific about the syndrome, and it often has been described as a “mononucleosis-like” syndrome. In addition, there is no consensus definition as to which particular signs and symptoms, or how many, should be present to prompt consideration of the diagnosis. For instance, fever—typically high—is usually, but not always present. But fever typically is accompanied by other signs or symptoms in those who present with ultimately-confirmed PHI.

Recently, Braun and colleagues from Switzerland published an article on “the frequency and spectrum of unexpected clinical manifestations of primary HIV-1 infection.” The researchers prospectively enrolled 290 persons with documented PHI between January 2002 and January 2013 into the Zurich Primary HIV Infection Study, a single-center, open-label, non-randomized, observational study. Their findings not only confirmed the varied presentation of PHI, but found that many of those with confirmed PHI presented with what many would consider “atypical” or unusual features.

In addition, these investigators attempted to “standardize” the definition of ARS, such that “typical” ARS was defined as fever plus one other sign or symptom (eg, adenopathy, rash, pharyngitis) typically associated with ARS, or two such signs or symptoms in the absence of fever. They defined “atypical ARS” as “lack of symptoms or signs, a single symptom or sign only and absence of fever, presence of symptoms or signs that are not considered typically associated with ARS, or occurrence of an opportunistic disease.” Here are their main findings:

- Typical ARS occurred in 70% of the participants; atypical ARS in 30%. Interestingly, 5% of participants (or 1 in 6 placed in the atypical ARS group) presented without any signs or symptoms, unusual or otherwise (ie, asymptomatic).

- Patients with atypical ARS were hospitalized 4 times more frequently than those with typical ARS (43% versus 11%). Primary HIV infection was suspected in the initial medical encounter in only 38% of the cohort.

- The GI tract was the most common site of symptoms in those presenting with atypical ARS. GI symptoms occurred in 14% of those with atypical ARS.

- Median CD4+ cell count and HIV RNA copy number at presentation for the entire cohort was 429 cells/mL and 6.6 logs (3.99 million copies/mL), respectively.

- Twenty-four percent of those in the atypical ARS group presented with an acute opportunistic infection, which included Candida esophagitis, invasive CMV disease, and multi-dermatomal varicella zoster infection.

- CNS manifestations on presentation in the atypical ARS group included HSV-1 meningoencephalitis, acute psychosis, and facial or oculomotor palsies.

At first glance, it might appear that the issues raised by this article are narrow and not applicable to those in primary care. After all, at this single site, an average of just 2 patients per month were identified with primary HIV infection. Furthermore, I do not know the size, or yearly patient volume,
of this particular site. However, Switzerland does have an HIV prevalence rate that approximates that of the United States--albeit with a much smaller population. And, if all primary care and emergency room physicians become more aware of the varied presentations of primary HIV infection, I truly believe that the subsequent early intervention made possible by early diagnosis will contribute substantially to the goal of reducing HIV incidence in the US.

References:

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