Pulmonary arterial hypertension and HIV

Researchers in Madrid, Spain, investigated almost 400 HIV-positive people for the presence of pulmonary arterial hypertension (PAH) using cardiac ultrasound scans. They found a relatively high rate of PAH—about 10%. PAH was most likely to occur in the following groups of people:

- women
- people co-infected with HIV and hepatitis C virus (HCV)
- people with untreated HIV infection

**Study details**

Researchers recruited 392 participants at random between October 2009 and April 2011 for this study. The average profile of participants when they entered the study was as follows:

- 83% men, 17% women
- age – 47 years
- duration of HIV infection – 13 years
- CD4+ count – 577 cells
- lowest-ever CD4+ count – 277 cells
- proportion taking ART – 84%
- proportion of ART users with an undetectable viral load – 76%
- HCV co-infection – 29%
- HBV co-infection – 5%

**Results**

A total of 39 people (about 10% of participants) had a diagnosis of PAH based on echocardiography graded as follows:

- mild – 25 participants
- moderate – 11 participants
- severe – 3 participants

Most participants (30 out of 39) were symptom free and their PAH was graded as mild or moderate. Symptoms in the remaining nine participants were as follows:

- shortness of breath
- chest pain
- fainting

In conducting their analysis, researchers found that factors such as age, length of HIV infection, CD4+ counts (current or lowest ever), duration of ART, presence of type 2 diabetes, smoking tobacco, high blood pressure and co-infection with HBV were **not** linked to PAH. No specific anti-HIV therapy or class of therapy was associated with PAH. However, the following factors were linked to an increased risk for PAH:

- gender – being female
- having HCV co-infection
- having a detectable HIV viral load

Chronic HCV infection damages the liver, and in cases of cirrhosis (severe liver damage) other research teams have
found that PAH can occur, affecting between 4% and 16% of people.

The Madrid team recommends that all HIV-positive patients be evaluated for PAH, particularly those who are co-infected with HCV and also those whose HIV infection remains untreated. Echocardiograms could be an initial non-invasive method of assessing this, although such scans are not wholly accurate.

Resource:

To learn more about pulmonary arterial hypertension, visit the [Pulmonary Hypertension Association of Canada](#)

REFERENCES:

Disclaimer

Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV- and hepatitis C-related illness and the treatments in question.

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