Cardiometabolic Disease in Patients with HIV: Who's at Greatest Risk?

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Dr. Segal-Maurer:
This is CME on ReachMD, and I'm Dr. Sorana Segal-Maurer. Here with me today is Dr. David Wohl. Let's consider a case.

We have our patient, JR, who's a 54-year-old cis-male diagnosed with HIV infection, 1998. The CD4 cell nadir at the time was 188 cells, and the CD4 count now is 765. Our patient has been on successive antiretroviral regimen since his diagnosis, and maintained virologic suppression. He has been on lopinavir/ritonavir, tenofovir disoproxil fumarate, and FTC [emtricitabine]. He then was switched to an integrase-based regimen with elvitegravir/cobicistat, and currently is on bictegravir/tenofovir alafenamide and FTC. His BMI now is 23 kg/m². His blood pressure within normal range, 128/86, on enalapril. Never a cigarette smoker. Total cholesterol 168, the LDL 118, HDL of 50. And overall, his risk score is relatively low, if not normal.

Now, Dr. Wohl, this doesn't seem to me like a patient who really would be on our radar for cardiovascular disease in HIV. Can you tell me a little bit more why we're talking about this case?

Dr. Wohl:
Yeah, no, thank you. This is an actual case, with just some minor details changed up a little bit. But this is a case that strikes me as emblematic of the issue that we're talking about, which is cardiovascular disease in people living with HIV. Because the next visit after these numbers were obtained and this history was obtained, I saw this patient and he informed me that he had been admitted to a local hospital a couple of months before because he had chest pain and had an MI, non-ST elevation MI, ended up going into catheterization, having angioplasty because of a left circumflex, almost 100% occlusion, and now has stents, is on a blood thinner plus aspirin plus metoprolol.

So it goes to show you that the calculator said there is a 5% risk. He was in that 5%, but I think his risk was probably higher. And there is a lot of data that show us that whether we use the Framingham or the more up-to-date American Heart Association calculator, it probably underestimates the risk of people living with HIV for cardiovascular disease, probably because there are some things that are not measured. And those who really study this a lot say maybe one of those big drivers is inflammation. Inflammation caused by immune activation, even though the virus is latent, there could be still some stimulation of the immune system. We know that that can happen, and that could lead to downstream effects including cardiovascular disease. That could be part of it. I think that might be. And the other thing, of course, is that maybe there's other factors that we don't really calculate, like exposure to smoke from other people or smoking marijuana or other environmental factors or stress and things like that. So for me, this was an eye-opener, and here is a person who I didn't think was that significant a risk, who I reassured, and it turns out, you know, that he had an MI. And I felt really badly about that.

Dr. Segal-Maurer:
And, Dr. Wohl, thank you for bringing up the American Heart Association guidelines. Recently there was an update specifically towards our patients living with HIV recognizing that the rates of MI and all other cardiovascular risks are much higher, even after controlling for
demographic and classic clinical risk factors. We know that there's a recent study, the REPRIEVE study, that looks at starting statins in a number of these patients, and it clearly made an impact in the reduction of cardiovascular risk. So I think this case really helps us highlight risk where we may not think there's risk, and here we have this study that suggests we have an intervention.

So I really thank you for this case. It is an eye-opener. And unfortunately, that's all we have for today. This has been a brief but great discussion. Our time is up and thanks to everybody for listening.

Announcer:
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