Transcript: HIV and Cancer - Prevalence and Prevention

May 18, 2009 By David Evans

At the 16th Conference on Retroviruses and Opportunistic Infections (CROI) in Montreal, David Evans talks with Nancy Crum-Cianflone, MD, a researcher and physician from the Naval Medical Center in San Diego, about the latest information on cancer and HIV disease, which cancers are more likely in people with HIV, and the best ways to prevent them. Click here to view the video.

David Evans: Hi, this is David Evans, I'm associate editor of AIDS MEDS.com and POZ Magazine. And I'm here with Dr. Nancy Crum-Cianflone. She is an HIV researcher with the IDCRP in San Diego. Welcome.

Nancy Crum-Cianflone: Thank you.

DE: And we're going to talk a little bit today about cancers and HIV and maybe we can break it up into sort of three categories: one would be sort of the AIDS-related cancers, and the second would be non-AIDS-related, but either infectious or non-infectious, and what are the trends that we're seeing. So, maybe if we could start with the non-AIDS-related because that's been getting a lot of attention here at the conference.

NC: That's been a big focus here at the conference as you mentioned, the non-AIDS-defining cancers. You know, since the advent of HAART, the AIDS-defining cancers, which are primarily Kaposi's Sarcoma and Non-Hodgkin's lymphoma, have markedly decreased. Particularly in patients who are diagnosed early and who get into treatment early, we really haven't seen those cancers very much. So proportionately the cancers we are seeing today are now the non-AIDS-defining cancers. Hodgkin's lymphoma, lung cancer, liver cancer, those have become a bigger and bigger focus of our practices in seeing those cancers. So the question that we are striving to answer, and I think a lot of important information has come out in this conference, is to understand if those are occurring at higher rates among HIV patients and what are some of the predictors for that.

So as you mentioned, the non-AIDS-defining cancers can be broken down, and were broken down in a session by Michael Silverberg (sp?) when he gave an oral presentation on this at the conference yesterday, into infection-related, and that's primarily viral-related, and then non-infection related. So patients with HIV can not only be infected with HIV but they may have other co-infectionsâ€¦

DE: Like hepatitis C andâ€¦

NC: With other viruses, because they share similar transmissions routes, or they are just common in the population. And so if you look at non-AIDS-defining cancers you can break those down into infection-related or non-infection-related. And so some examples, like you just mentioned, of infection-related are liver cancer. Because many of the cases of liver cancer we see are with patients who are co-infected with hepatitis b or c. Anal cancer is another one that falls in that category, the co-infection with human papiloma virus or HPV. And Hodgkin's lymphoma, which is another common cancer we are seeing now, is sometimes associated with the Epstein-Barr virus. And so those are the infection-related cancers. And then there is another group which not so much known to be related to infections, like lung cancer, kidney cancer, skin cancers. And so I think one really interesting point that came out of Michael Silverberg's talk is that if you compare HIV-positive and negative persons, HIV-positive persons seemed to have a higher risk of these non-AIDS-defining cancers, which has been a real concern of all of us to find out why that is. Interestingly, though, when you break it down into infection-related and non-infection-related, it was primarily infection-related cancers that were occurring at the higher rate in HIV patients, not so much the non-infection-related. So he showed that HIV-positive persons have about a six to seven-fold higher rate of these infection-related cancers versus the general population. And he studied a large population at Kaiser Permanente in Northern California. So I think the interesting point of this is that maybe we need to then start to target and focus in on cancers that are non-AIDS-defining but are infection-related, and try to understand how it is that these co-infections are then leading to cancer, and how we can stop that from happening.

DE: Particularly for the liver cancer, because it's occurring at such high rates, if someone has managed to clear HCV from HCV treatment, would they be at the same risk of liver cancer of the next ten years as someone who had not cleared their HCV?

NC: Correct; so I think if we treat the hepatitis b and hepatitis c, certainly there is markedly decreased risk for going on to cirrhosis and going on to liver cancer. And so, you know, just for a baseline, prevention of getting hepatitis b or hepatitis c. And asking your physician, "Am I protected against hepatitis b, have I been vaccinated?" And then, you know, precautions against picking up these viruses, safe sex practices, not using dirty needles, things like that. But if you are then co-infected with one of these, and you find that out, then treatment for hepatitis b or hepatitis c markedly reduces the risk to going on to develop cancer. And so I think prevention is number one, but then treatment of these underlying viral infections, when we have treatment available, will markedly decrease your risk.

DE: And because treatment for hepatitis b and HIV still overlap, it's my understanding that the recommendations for someone who has hepatitis b would start HIV treatment earlier, regardless of their CD4 count?

NC: That's absolutely true. The new guidelines have suggested that, information at this meeting have shown that that is really the beneficial thing to do. And as you mentioned, many of the HIV drugs also treat hepatitis b. So now what we try to do is: one; start when someone is co-infected

and has active hepatitis b, and then pick out the drugs from that long list of HIV medications that treat both viruses. So things like tenofovir (Viread) and lamivudine (Epivir) and FTC (Emtriva, emtricitabine), those are drugs that treat both viruses. So we want to make sure that we have three drugs that treat HIV, and at least two drugs that treat hepatitis b, because I think some of the information out of this meeting and from other publications suggest that if you treat with less than that, let's say just one active drug against hepatitis b, you are going to have a higher failure rate. And so starting out with a treatment that encompasses both viruses, and extensive treatment, not just relying on one drug to treat either infection, really would be resulting in the best outcome. And again, as we can suppress the viruses the reduction in cancer risk is certainly notable.

DE: In terms of CD4 count; are people who have a low CD4 count, or maybe who once had a very low CD4 count, at increased risk for these cancers do we know, or is that even a factor?

DC: That's a great question. And so we know CD4 count is very predictive of the AIDS-defining cancers: the Kaposis and the non-Hodgkin's lymphomas. And that's part of the reason that as we've introduced HAART and gotten people's CD4 counts higher, we don't see those cancers anymore. It's very contentious in the literature whether or not CD4 count plays a real important role in these non-AIDS-defining cancers. Some studies have suggested your risk is a little bit higher if your CD4 count is lower, there was a poster at this meeting suggesting that. But other publications have not really found a strong link between CD4 count and the development of these cancers. I think clearly keeping your CD4 as high as possible is the best thing to do. Maybe will be linked to the reduction to some of these cancers. But I think the information is still out. In, for instance, Michael Silverburg's talk here, he saw that HIV patients had a higher risk for cancers than HIV negatives, but he wasn't able to present any data on what is the impact of CD4 count and what is the impact of HAART. So we look forward to some of that information to help us understand whether better immune reconstitution helps prevent these. I think the feeling is overall there is probably some effect to that, but there is also a big effect on these cancers on the co-infections that we just talked about, behavioral things like smoking. So I think those things also have to be tied into this. Patients should be advocated to get their CD4 counts as high as possible, recommended by the guidelines, treat co-infections, prevent co-infections like HPV and then stop smoking. I know that's real easy to say and very difficult to do, but those are the things that I think will really reduce morbidity and mortality and these cancers.

DE: You know I'm a former smoker so I know how hard it is to quit, but one of the things that I think people don't often realize is they think smoke and lung cancer, but smoking can actually increase your risk for a lot of different cancers, is that right?

NC: Absolutely! And so head and neck cancers, lung cancers, some of the GI tumors that we see, so it goes well beyond just the lung cancer.

DE: And for the women cervical cancer too, is that right?

DC: Yes, absolutely. And so it's many of these non-AIDS-defining cancers. And there have been

some other presentations here about the higher risk of COPD (chronic obstructive pulmonary disease), another lung disease, and so it goes beyond just preventing cancer to try to stop smoking, it also helps for just general health and preventing other diseases like COPD.

DE: Well, great. Well thank you so much.
