Using Combination Therapy to Effectively Treat Multiple Myeloma

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Andrew Schorr:

Dr. Lonial, so now you have more tools and maybe more coming, and the question in oncology when this happens is often sequencing and combinations. How do you figure that out?

Dr. Lonial:

Combinations in my mind represent the most effective way to reduce tumor burden when the disease remains sensitive. And in the setting of a newly diagnosed myeloma patient I like to hit them with an effective combination because if you think about saving drugs for later the cells are likely to have acquired new mutations and be resistant, and you may not get as much mileage out of those drugs as you'd like.

I think one of the really satisfying parts of myeloma is that the pipeline of new drugs, new targets and new therapeutics is huge. I like to think about using the best tools I have at each point in a patient's disease. In the newly diagnosed point I'm going to use the best weapons I have, and if and when that disease comes back later on, I'm going to have a whole new crop of new drugs and new tools to use at that time because I believe the research is really moving us forward.

Andrew Schorr:

Let's talk about that. Are we developing more specific medicines?

Dr. Lonial:

I think there are two things that we've done in the last five to seven years, and the first is we've seen success with proteasome inhibitors and IMiDs, and what the second wave of new drugs is offering us are more effective, less toxic versions of those same drugs, so second-generation proteasome inhibitors, second- and third-generation immunomodulatory drugs.

I think the other piece of that, the second piece, is that we are now starting to realize that myeloma is not a single disease, that there are multiple different subsets and identifying targets and drugs within each of those subsets that we can then use to individualize treatment in a maintenance typesetting.

Andrew Schorr:

People are hearing about the results of the Human Genome Project. Where are we with the sort of genetic variation in medicines for that?

Dr. Lonial:

I think what separates us from other diseases is that unlike breast cancer or lung cancer or colon cancer, where individual drug responses are not very high in those diseases, we have combinations like RVD where everybody responds or nearly everybody responds. For us the question is how do you tailor the next approach to treatment based on those genetic abnormalities because we don't need a genetic test to tell us whether somebody should get treated with X or Y in the beginning because we know they all respond to X plus Y.

Andrew Schorr:

All right. As people live longer, as a cancer survivor you worry about a second cancer. Talk a little bit about the concern about second cancers for people with myeloma.

Dr. Lonial:

I think that as you get better and better at doing what you're doing I think realizing some of the collateral damage associated with treatment becomes an important part of optimizing the way one approaches therapy. I think in my mind right now the risk of relapsing from the primary cancer remains the biggest concern, and so I want to treat as effectively as I can until I get everybody cured with the disease. And once I achieve that goal then I can say, well, what can I dial back a little bit to reduce the risk of getting something else.

Remember, in diseases like breast cancer there is a risk of secondary leukemia from standard Adriamycin (doxorubicin) and cyclophosphamide (Cytoxan). Other cancers all have second risks, but once you get to that threshold where everybody is doing really well, then we start to dial back a little bit and figure out how to optimize that.

Andrew Schorr:

Are you encouraged?

Dr. Lonial:

Absolutely. Absolutely. I mean, you never want to say there's a good time to have cancer, but I think that what we have available as treatment options in a disease like myeloma is really very encouraging, and I think we're going to go down roads we hadn't even thought about before with new drugs and new targets. I've seen some science that shows us new pathways or ways to tweak existing pathways, that really is very overwhelming. I think it's an exciting time.