2022 Case Based Panel Discussion

Neoadjuvant Chemotherapy +/- Nivolumab for Patients with Early Stage NSCLC

Speakers:

Dr. Ibiayi Dagogo-Jack: Thoracic oncologist, Internal Medicine/Medical Oncology, Massachusetts General Hospital, Instructor, Medicine, Harvard Medical School

Dr. Joshua Reuss: Thoracic medical oncologist at MedStar Georgetown University Hospital, Assistant professor in the Department of Medicine at Georgetown University Medical Center.

TRANSCRIPT

Dr. Dagogo-Jack: And so recently, our field has been kind of shaken by a trial that introduced a new way of treating stage three or kind of early stage lung cancer in general. And so, Josh, do you mind talking to us a little bit about this Checkmate 816 trial? What was the question that was asking and what did we learn?

Dr. Reuss: Sure. Thank you. So. So this trial was specifically looking at giving neoadjuvant therapy before surgery and what that means. Neoadjuvant means giving the systemic therapies or chemotherapy or immunotherapy before surgery. That's different than giving the treatments after surgery. There are pros and cons to both both approaches. I actually just had this discussion in clinic not so long ago with the patient, and I think it's important that patients understand, you know, what approach might be best for them and why we would recommend it with this particular study.

So this looked at, again, giving the combination of chemotherapy with nivolumab immunotherapy before surgery. This included patients with stage 1B to 3A lung cancer. And we know that those are stages that that traditionally chemotherapy is oftentimes recommended to decrease the risk of the cancer coming back and actually mentioned stage 1B to 3A now, with today's iteration of staging, mostly this was patients with stage two and three lung cancer.

And so patients were enrolled into this study and they received either chemotherapy by itself, which had been our standard for many years, given either before or after surgery or the combination of chemotherapy with the immunotherapy nivolumab for three cycles of treatment prior to planned surgery. There were two key outcomes that we were looking at in this study. One was called Pathologic Complete response. And what that means is we were looking at how do the treatments affect the cancer, How well do the treatments kill the cancer cells when we go and remove them with surgery? And so what that literally means, pathologic complete response is it means that they're when the

surgeon goes in and takes out the cancer, there was actually no viable living cancer cells still in the tumor or the lymph nodes that are removed with surgery.

That's what a pathologic complete response is. And we know that that significant amount of response, at least with chemotherapy, had been associated with long term improved survival outcomes. The second main outcome of this trial was looking at what we call event free survival. And so the way that I describe this with patients is it's different than overall survival event Free survival, oftentimes commonly called disease free survival looks at the time to the cancer coming back or to death from any cause, which again, is different than overall survival, which is just alive or not alive.

And so those were the two main outcomes of this study.

You want me to go into what they showed now or-

Dr. Dagogo-Jack: I think it's- I think it would be useful to summarize.

Dr. Reuss: Yeah, sure. So and so that was how the study was designed. And again, patients either got the combination of the immunotherapy with the chemo for three cycles or chemotherapy by itself. And what this data here is showing is that this actually was a positive study. We were very excited to see outcomes that we wanted to see, which was that, number one, the rate of this complete response to the chemo immunotherapy was a lot higher than chemotherapy by itself. You could see that about a quarter of patients who received this treatment had a complete response when it was time to remove the cancer at surgery.

And then not only that, we did see that this combination of medicines did improve what we call the event free survival or disease free survival. And that actually reduced the risk of recurrence by about 40%. And so, you know, I think an important discussion is, well, who do we recommend this and who do we recommend receive adjuvant or the chemo and immunotherapy after surgery? And I'd be interested to hear what my colleagues think about this in my practice, for patients such as this case who have a lymph node that has cancer in it in the middle of the chest, what we call an end to lymph node.

If those patients potentially are candidates for surgery, I do tend to recommend this neoadjuvant approach. We know that in patients in this study who had the neoadjuvant therapy, their surgeries appear to be overall shorter in terms of time of surgery and somewhat less complex, less of a need for an open surgery, less of a need to remove the full lung as opposed to part of the lung. So those are

oftentimes patients where I would definitely recommend giving the neoadjuvant approach, though I will also recommend it in those who have large tumors as well as in those who have lymph nodes that have

cancer in them that are a little bit more kind of closer to the actual tumor itself, what we call n one lymph nodes.

But I think in adjuvant approach is also reasonable, particularly if we don't know that lymph nodes contain cancer until we get to surgery. But obviously it involves a detailed discussion of the length of therapies, how it potentially affects risk for surgery and kind of what information we can gather at the time of surgery.

Dr. Dagogo-Jack: Exactly. I think that this is a relatively moving area in our field in terms of figuring out who should get the treatment before surgery and who should get it after surgery. I think the good thing is that we have good therapies and immunotherapy options in both settings. I suspect there's probably some variation across institutions in terms of if they give it at the beginning or afterwards.