



Challenging Cases in Lung Cancer: Adjuvant Therapy for a Small NSCLC Lesion with Satellite Nodules

Dr. West:

Hello and welcome. My name is Dr. Jack West, and I'm a medical oncologist and the Founder and CEO of GRACE, the Global Resource for Advancing Cancer Education. Our program today is made possible through generous support from the LUNGeivity Foundation.

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The same series of cases was discussed with multiple experts in the field of lung cancer from several different institutions to provide a better sense of where there is consensus and where there is still a wide range of treatment styles that might all be considered appropriate.

Each podcast starts with a brief thumbnail of a case presentation and then discussion from a live program done with Dr. Robert Doebele, Assistant Professor of Medical Oncology at the University of Colorado Medical Center in Denver, and Dr. Jyoti Patel, Associate Professor of Medical Oncology at the Feinberg School of Medicine at Northwestern University in Chicago.

The discussions will then continue with commentary by the several other clinical experts, including:

- Dr. Suresh Ramalingam, from Winship Cancer Center, Emory University in Atlanta, GA,
- Dr. Jonathan Goldman, from Premier Oncology in Santa Monica, CA.
- Dr. Julie Brahmer, from Sydney Kimmel Cancer Center at Johns Hopkins University, in Baltimore, MD
- Dr. Heather Wakelee, from Stanford University Cancer Center in Palo Alto, CA
- Dr. Karen Reckamp, from City of Hope Cancer Center in Duarte, CA

The first case is a 65 year old man who undergoes a left lower lobectomy for what appears clinically to be a rather small 1.4 cm squamous cell carcinoma, a non-small cell lung cancer based on pathology prior to surgery. However, the pathology after he has completed that surgery that, in addition to the primary tumor, there is actually a small satellite lesion that is just about 3 mm and it appears to be distinct, separate from the main tumor. So, this person comes to see you for consideration of adjuvant therapy and has a good performance status. It's four or five weeks after the surgery. The question, and I'll start with Dr. Doebele about that, your thoughts on how enthusiastic or reluctant you might be about adjuvant chemotherapy for someone with an otherwise very small tumor but with one or more very tiny satellite lesions?

Dr. Doebele:

Sure, first of all, I think it would definitely be worth a discussion about the pros and cons of adjuvant chemotherapy in this setting. Technically, under the new staging system, this would be a T3N0 or Stage IIB. Under the old staging system, where most of the adjuvant trials were on, it would be a T4N0 and technically Stage IIIB. So, if you look at it from that standpoint, there is a roll for consideration of adjuvant chemotherapy. And so, I believe it would be worth discussing the potential benefits that adjuvant chemotherapy can increase the risk of survival. The absolute benefit is relatively small in Stage II, probably only 5 or 6%. But for someone who was a good performance status and wanted to do everything possible to prevent their cancer from coming back, I think it would be worth a consideration.

Dr. West:

And Dr. Patel, how would you approach this kind of case?

Dr. Patel:

I would absolutely agree there. There are a couple of things that I think this case brings to light. One is how wonderful for this man that he has a 1.4 cm lesion. I think this is a scenario that we will likely see more often in the coming years as we start understanding what roles screening might have in a population that might be at risk for developing lung cancer. So, on first glance this gentleman should have an excellent prognosis with just one small lesion. The 3 mm lesion comes from probably a pathologist that really pays a lot of attention and sectioned the entire lobectomy carefully to find a tiny, probably not palpable lesion.

So, he ends up having T3N0, as Dr. Doebele had mentioned. The problem is that this scenario is very unusual. The data that we have regarding adjuvant study, it's populated primarily by patients who have nodal disease. And I would consider this a sort of a data-free zone. The studies that we have really don't address this gentleman. However, if we look at the new staging system and we look at survival. Currently, he does have a substantial risk for recurrence. And he may elect to move forward with chemotherapy. Again, this is a squamous lesion. You always worry that this gentleman has a propensity for developing other lesions.

I don't think chemotherapy would change or would keep him from developing a cancer that was destined to be. This would really be looking for reoccurrence. It may have a benefit for someone who has no other medical problems and his survival was felt would be 15, 20, 30 years. Then I think it would be very reasonable, and it would be a very personal decision.

Dr. Suresh Ramalingam, Winship Cancer Center, Emory University, Atlanta, GA:

So this is an area where we don't have a lot of clarity. Clearly, we know that for patients that have node positive disease or larger tumors *vis a vis*, more than 4cm, there is a role for adjuvant chemotherapy. In this case, this patient's tumor, according to the new staging system, would be a Stage II cancer, but a very small primary and I presume this is node negative. So, in a patient who is young and has a very good performance status and no other major medical comorbid illness, I would lean on the side of giving chemotherapy just as a preventative measure.

We know that this is a sub group of patients that have a relatively better outcome compared to some of the other types of stage II patients. But having said that, given how notorious lung cancer is, and given that some of these patients will actually include in the clinical trials that evaluate the role of adjuvant chemotherapy, my inclination outside of a clinical trial would be to err on the side of treating this patient with chemo.

Dr. West:

The histology itself of it being squamous versus adeno, does that really affect your mindset about inclination towards or against adjuvant chemotherapy?

Dr. Ramalingam:

The difference in histology in terms of whether to treat or not treat a cancer is not something we routinely do. I am well aware of how we all are aware of how adenocarcinomas tend to be more aggressive and develop distant metastasis very quickly, versus a squamous, which tends to be in many instances locally and a regional cancers. We use histology to select different types of treatment. But at this point, I don't think we have enough to say a patient with squamous with similar characteristics should not receive chemotherapy versus a similar patient with adeno getting chemo. So, to me, that it is irrelevant, but it does not help me make a decision one way or another.

Dr. Jonathan Goldman, Premier Oncology, Santa Monica, CA:

I think adjuvant chemotherapy is a very special circumstance that you face as a medical oncologist because you hope to have the opportunity to cure a patient. You have to weigh against that the toxicity and also the uncertainty. You never know which patient you've benefited and which you didn't.

I do tend to think of a circumstance like this telling us about the biology of the cells and that these cancer cells were able to spread. That there is maybe not too much of a difference this and someone with higher lymph node involvement. And so my leaning is to treat a patient like this with chemotherapy but be very clear with a patient that the data is not entirely clear and that we're doing our best to extrapolate.

Dr. Julie Brahmer, Sydney Kimmel Cancer Center, Johns Hopkins University, Baltimore, MD:

Unfortunately most of the adjuvant studies didn't include patients with this type of disease, so it's hard. How can we best use that data and extrapolate to this patient? Again, I think it gets back to, how quickly did this nodule come up? How aggressive is this tumor? If there are other satellite nodules, I do get nervous that there may be other nodules elsewhere that we just can't see. But, I can't tell that patient that they are going to benefit from adjuvant chemotherapy. But I think it would be worth a try. Again if it's a very slow growing tumor, if we have any history on that, then I may be less likely to recommend adjuvant chemotherapy.

But if it's something that I have no history on, or if it's documented that it's relatively aggressive tumor, then I would certainly recommend at least trying the adjuvant chemotherapy. This comes up all the time. We just had another case like this in our tumor conference last week that only a little bit older patient but had multiple satellite lesions. Again, they were quite small. But we recommended at least considering adjuvant chemotherapy. And again, I would recommend Cisplatin and if that patient just couldn't tolerate Cisplatin, then maybe backing off and not doing chemotherapy would be appropriate. When we just don't know whether or not the chemotherapy is going to benefit.

Dr. Heather Wakelee, Stanford University Cancer Center, Palo Alto, CA:

With just a 1.4 cm squamous, the answer would be no, I really don't think there would be any role for adjuvant chemotherapy. With the satellite nodules, we don't know. With the old staging system that was in place with all the adjuvant trials that was obviously a Stage IIIB, and those weren't included. With the new staging system, it was technically a Stage III. But, we don't have that type, that tumor with the satellite nodules haven't been in the adjuvant trials. We don't know that chemo makes a difference.

The first thing I would do is, obviously, work with the pathologist to see if this was truly a satellite and not something where you could see a little bridge going to it or some other direct connection. If you could identify that, I would still say no. With that, it does raise the concern that either there's second primary or that this is truly satellite. If this is a second primary and they have two little primaries that are out, I would still say no.

If it's truly a satellite, it looks like it's the same histology, it's absolutely not connected, then I would, again, tell the patient, I'd go through the risk of chemotherapy and the benefit side. And there was just a chance of benefit given that this tumor had already spread. I would probably quote in the 5-10% absolute survival benefit at five years, but really we're just pulling that out of the air position of strong data. And again, we'd go over it with the patient. Some patients, given that information, look at you like you're crazy for even bringing up chemotherapy if it's only a 5-10% difference and it's three months of chemotherapy. Then other people jump at anything that could help. So, it's going to be very dependent on that particular person.

Dr. Karen Reckamp, City of Hope Cancer Center, Duarte, CA

I think a satellite, whether it's microscopic or not, I think a satellite nodules shows us that there is more cancer and it's had the opportunity to spread. So, I think in this case I take it more like a stage II lung cancer, T3 lung cancer. In a good performance status patient, without significant co-morbidities, I would have a serious conversation about adjuvant chemotherapy. I think this pretends to somebody who has potentially micro-metastatic disease and those are the patients that we are trying to treat and trying to get rid of any of those cancer cells that are lingering behind.

Dr. West:

I hope that the program was helpful, and we'd also like to again thank the folks from LUNGeVity Foundation for their partnership on this program.