GRACE
GLOBAL RESOURCE for ADVANCING CANCER EDUCATION

Round Table Case Discussions, Part 3: Treating "Precocious" Metastatic Disease with Curative Intent, with Drs. Alex Farivar & Anne Tsao

Dr. West: I'd like to turn to a new case. A 54-year old gentleman, very good performance status, hailing from eastern Washington, who had symptoms of left facial and hand numbness as well as some weakness on that side. He had a head MRI that showed a 1.5 cm cystic lesion in the right pons which is at the base of the brain and it did not look from the radiologist's perspective to be a primary grade tumor, but rather one that had spread from elsewhere.

That led to a CT scan which showed a small 15 X 8 mm nodule or two. It was not clear whether it was bilobed or two separate ones in the right upper lobe. Here is some imaging of the lesion in the base of the brain that is the white spot in the center there. In the cuts to the right, you can see there some gray area around that blacker circle and that is some edema, some fluid around that.

He had a biopsy of his lung lesion that showed adenocarcinoma and protein studies called immunohistochemistry of that which showed that it started as a lung cancer. So this was probably a situation of a lung cancer that had spread to the brain. There wasn't evidence of any disease elsewhere.

He was specifically referred here to get focal radiation to the brain lesion to control that. While he was here, he was also sent with a question of how to manage him more globally.

This is his lesion or couple of lesions that are contiguous in the top of the right lung and there was no evidence of any disease elsewhere in the chest or in the body elsewhere.

The PET scan showed some metabolic activity of that spot on the right, what's called a standard uptake value (SUV) of not very high. He received radiation to that spot at the base of his brain over five treatments. Then we talked about what to do. He was healthy, had very good lung function and he was felt to potentially be a candidate for surgery.

Stopping there, I'll ask both Alex and Anne, what are the guidelines that you generally use to consider who you would pursue a curative treatment for one or two metastatic spots? Are these people who have no nodal involvement elsewhere? Do you need to have a single focus of metastatic disease in a particular place? Why don't I start with Alex?

Dr. Farivar: I think a volume of tumors being important in terms of moving forward. In this gentleman this was a young gentleman (54), fit, good exercise capacity. With respect to moving forward, if he had a mediastinoscopy that only showed a small amount of disease in his lymph nodes and he's young and fit, I would move forward with an aggressive attempt to remove all the disease that he has and that includes the lobectomy that includes an extensive mediastinal lymph node dissection in the operating room.

Dr. West: Anne, what's your perspective on who you treat with curative intent despite metastatic disease?

Dr. Tsao: We have no clinical evidence based medicine to support this, but anecdotally I completely agree with Alex. You use the patient's clinical presentation: Are they young? Fit? Will they have a good quality of life if we try to proceed with very aggressive therapy? Certainly the volume of disease as Alex mentioned you have to make sure that they have a very small amount of disease that you can eradicate.

Dr. West: There are some places that have a guideline that they would consider treatment for a so-called precocious metastasis if there is no evidence of any nodal disease in the chest. Others would say that if there are nodes involved it's not precocious and the outcomes are going to be poorer. Would neither of you consider that to be a line in the sand?

Dr. Tsao: It's not a line in the sand for me because I think every individual is different. It depends on how they present.

Dr. Farivar: I would definitely says it's not a line in the sand; and putting lines in the sand means we know what's optimal for everybody ,and we certainly don't. People who are young and fit, I think we do things that are aggressive because anybody who's taking care of lung cancer has seen people do surprisingly well -- better than what the books or literature or the other doctors would have said how they're going to do. We still have to figure out these answers.

Dr. West: In this particular patient, he had a single focus of microscopic disease in a lymph node in the mediastinum. We standardly approach that with preoperative therapy of some type. Even taking aside the issue of the brain metastasis, what do you consider to be an optimal approach for a younger, fit patient with a small volume of mediastinal disease before planned surgery? Anne —

Dr. Tsao: Technically, standard of care would be chemoradiation for a patient with N2, meaning a positive lymph node in the mediastinum, disease.

Dr. West: Concurrently?

Dr. Tsao: Concurrent. However, there are lots of different ways to do this. It's the art of medicine. Some patients may benefit from getting systemic chemotherapy first followed by surgery, followed by radiation. Or even in a patient with microscopic N2 disease doing surgery first followed by radiation and then actually systemic chemotherapy afterwards would be appropriate as well.

Dr. Farivar: There's no right answer. I would feel comfortable in this scenario putting surgery off until later. This is a systemic problem—it's in the brain, its in the lymph nodes. What I do in the operating room is not going to cure the patient. I think it helps moving forward in terms of removing disease. So I would favor doing all the other treatments first, even to very high definitive levels and then following if there's no disease progression with surgery. So chemotherapy, radiation to however high the experts want, even if that's up to 60 gray. And then if there's no disease outside of where I can take out, then I think we move forward with an operation.

Dr. West: Let's go back to the question of someone who presents with a single focus of brain metastasis. He's treated with focal radiation stereotactically. Would you recommend he receive whole brain radiation after that to reduce the risk of any other cancer in the brain emerging or would you be comfortable treating that one spot and hoping for the best?

Dr. Tsao: I only treat that one spot. You already know that this patient's disease, the biology of it, it likes to go to the brain. There's a possibility later on that you're going to have the risk of recurrent brain disease. In those situations, you want to save—it's a strategy, like a chess game—you want to save your treatments until you have to use them. There's no data right now out saying that prophylactic cranial irradiation in non-small cell lung cancer in a metastatic setting has benefit; different in small cell.

Dr. West: Well, this is not prophylactic in the sense that this is somebody with brain metastasis.

Dr. Tsao: Understood. I was extrapolating a little. You've already taken care of the brain lesion. The purpose of potentially going with the whole brain is to prevent further brain disease from recurring.

Dr. West: Well, thank you very much. These are tough cases.