



2022 Case Based Panel Discussion

Surgical Options for Stage IV NSCLC with Brain Metastases

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 for our final case, this is a 60 year old woman who's presenting with neurological symptoms. So she has headache, nausea, vomiting. I didn't put that here. But she does have vomiting and gait imbalance. She's having multiple falls. And so as far as her medical history, she has anxiety. She doesn't have any other reason that we would think of why she would be having these neurological symptoms. And she does have an active smoking history. So she ends up coming to the emergency room and gets brain imaging to figure out why she's falling and why she's having headache and nausea. And it shows multiple brain metastases, including two large ones, one on the side of the brain called the temporal lobe.

So three centimeters, and one at the bottom of the brain called the cerebellum. It's 2.4cm. The cerebellar one is particularly problematic because it's basically causing tension on the brain and causing what we call herniation of components of the brain, because most adults who are presenting with multiple areas in the brain don't tend to have a tumor that originated in their brain or primary brain tumor, she had additional imaging to see whether or not this may have traveled to the brain from a different organ. And it showed a right lung mass, which we outlined here in the red circle, as well as a tumor at the top of a in a gland called the adrenal gland that sits on top of the kidneys.

And so this looks like a kind of a stage four lung cancer. And when we encounter patients who have brain metastases- that's what this is. There's a couple of different tools at our disposal. Sometimes we do surgery, sometimes we do radiation. Sometimes we combine them and sometimes we we just jump straight to a blood stream therapy, a systemic therapy. And so to ask you, Josh, how do you think about surgery for brain metastases? What types of patients do you consider surgery for?

Dr. Reuss: Sure. So I think it depends on several factors. One is symptoms or is the patient severely symptomatic? Do we think that the symptoms are driven by the spots in the in the brain? And a second



and I think it's highlighted well in this case is where you have a scenario where any additional growth and additional change could really lead to some tragic consequences this herniation. So I think those are the cases where we really have to consider surgery, where there's a really urgent emergent need, where you really need to resolve what's going on quickly.

And it does have the added benefit of getting you a histologic diagnosis in most of the cases. But obviously not all cases require surgery. I think that in cases where the cancer spots are smaller and there are no symptoms, oftentimes in those scenarios we can we can wait, we can get additional information from biopsy and other areas in the body if they're more easily accessible. Also, that's where we can oftentimes wait for the molecular results. The next generation sequencing that some of my colleagues have mentioned earlier, because these targeted therapies that we've been talking about, your Tagrisso for EGFR, your other therapies for other mutations such as ALK and RET, these therapies get into the brain very, very well.

And for patients who do not have brain spots that are concerning, you know, or imminently really dangerous, oftentimes we can start those therapies by themselves and avoid radiation or avoid surgery and thereby prevent potential side effects from those treatments. So that's generally how I approach a patient who presents with a- with a brain metastasis.