



## NSCLC vs. SCLC: Why Are They Treated Differently?

**Laura Chow, MD**

Associate Member, Clinical Research  
Seattle Cancer Care Alliance

Please remember the opinions expressed on Patient Power are not necessarily the views of our sponsors, contributors, partners or Patient Power. Our discussions are not a substitute for seeking medical advice or care from your own doctor. That's how you'll get care that's most appropriate for you.

**Andrew Schorr:**

Dr. Chow, so first of all we were talking about small cell lung cancer, and people have also heard there's non-small cell lung cancer. What's the difference?

**Dr. Chow:**

So there's quite a substantial difference between the two. Well, certainly non-small cell lung cancer is the majority of the cancers that we see. Small cell lung cancer is less frequent and has made up about 15 to 25 percent of the lung cancers that we see.

Small cell lung cancer is characterized by the fact that the cells are exceptionally small, and it has a very distinct growth pattern in that the cells actually grow very quickly in terms of weeks or even days in terms of multiplying and spreading, and it's a disease that becomes resistant to treatment very quickly.

Non-small cell lung cancer is usually from tissues that are larger, so the cells under the microscope are large. The growth pattern is a little bit different. It's a little less sensitive to chemotherapy radiation, and it is a little slower in terms of its growth. It usually grows in terms of weeks to months, and so the treatments are quite different in terms of how we treat small cell versus non-small cell.

**Andrew Schorr:**

Okay. And where you are now, and we'll talk about this in more detail along the way, is there hope for small cell?

People see TV ads now for medicines for non-small cell, and it has a lot of buzz. Is there hope in the research you're doing and your colleagues around the world for small cell?

**Dr. Chow:**

Well, I think the focus for small cell lung cancer has been to try and improve chemotherapy radiation techniques, to improve cure for a very long time for limited-stage patients. We have tried very hard to add in new chemotherapies as well as new radiation techniques, but it's been a little bit challenging to find new agents that are as effective. What has been the new thing that has when about would be the advent of immunotherapy or anti-PD-1 therapy, otherwise known as the new checkpoint inhibitors. This is using your own immune system to try and fight off the cancer, and it was a technique that was first established in non-small cell lung cancer, approved for non-small cell lung cancer, and at this time we are finding that there's quite a lot of activity of these drugs in small cell lung cancer as well as other tumors as well. So we're really excited about some of the new drugs that are out there.

There is also a lot of promising research being done in terms of what we call antibody drug conjugate, which is a protein attached to chemotherapy, and it attacks a protein called DLL3, and the response rates have been exceptionally good, and it looks very promising, but this is still in early-stage trials. And again we're looking at other targeted agents and very new agents that are coming down the pipeline that I think are very promising.

I think there's a lot more focus and a lot more trials that are being done now. We found that small cell lung cancer is sensitive to immune therapies, so there's a lot more focus in terms of combination immune therapies and other ways of attacking the cancer should the cancer ever come back or not respond to typical chemotherapy.

Please remember the opinions expressed on Patient Power are not necessarily the views of our sponsors, contributors, partners or Patient Power. Our discussions are not a substitute for seeking medical advice or care from your own doctor. That's how you'll get care that's most appropriate for you.