

### Transcript Details

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## Examining RET-Rearranged NSCLC Across Gender Lines: Prognostic Implications for Men & Women

### Announcer Introduction

Welcome to Project Oncology on ReachMD. On this episode, sponsored by Lilly, we're exploring the genetic characteristics and prognostic implications among our male and female patients with non-small cell lung cancer who harbor the RET fusion gene with Dr. Michael Shafique. Dr. Shafique is an Assistant Professor of Thoracic Oncology at the Moffitt Cancer Center in Tampa, Florida. Let's hear from him now.

### Dr. Shafique:

So, there's not a whole lot published regarding gender differences and characteristics between male and female patients with RET fusion abnormalities, and as many of the audience know, it's only about 1 to 2% of lung cancers. But from what we do know, there is a higher rate of KIF5B fusions with RET genes in female patients; about 80% of female patients harbor this fusion partner with the RET gene. This seems to confer a shorter progression-free survival when compared to male patients with the same genetic fusion partner. And the progression-free survival difference is almost two months in median progression-free survival.

It seems as though for males there's a much higher rate of CCDC6 RET fusions so the partner fusion gene CCDC6 is usually found at a higher rate in males compared to females. And overall, the male patients with RET fusions do seem to have a longer progression-free survival. And interestingly, it does seem as though female patients compared to male patients have a higher PDL1 positive rate, and so oftentimes, male patients have a lower PDL1 expression or negative PDL1 expression at a higher rate than female patients do.

I think the second important point in addition to thinking about RET translocation and kinase inhibitors with the PDL 1 staining patterns that we see immunotherapy with checkpoint inhibitors would be a reasonable second-line option for female patients harboring RET fusion abnormalities just give a higher rate of high expression of PDL 1 in these patients.

### Announcer Close

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