Environmental Influences on the Development of Pulmonary Fibrosis

Dr. Sonye K. Danoff: We're here today in Nashville, at the Pulmonary Fibrosis Foundation meetings, and we had some really great talks this morning about the influence of the environment, and the potential role that plays in the development of pulmonary fibrosis. What did you think about those talks, Dr. Whelan?

Dr. Timothy P. Whelan: They were really great talks. They started with a discussion about the microbiome of the lung, and it's a very interesting topic, because, you know, in the past, people have really thought that the lung is a sterile environment, but we know today that's definitely not the case, and the influence of those organisms that are living in that environment may affect disease. The science of this is preliminary, but they are looking at some influence of antibiotics on IPF outcomes, and it may turn out that that is a potential strategy for therapy.

In addition, they talked about gastroesophageal reflux, which has been hypothesized for quite some time to potentially be an environmental factor that can exacerbate disease, and influence IPF. What's really exciting from that talk is that the laparoscopic surgery trial, which is a randomized study, is now fully enrolled, and we should be looking for results from that study in the spring. What other types of things did you find interesting?

Dr. Sonye K. Danoff: Yeah, I really enjoyed the talk about obstructive sleep apnea. It has been known for some years that sleep apnea is more common in patients who have pulmonary fibrosis, but there's really an emerging group of data suggesting that there may be some benefit to treating the sleep apnea in terms of the impact on the pulmonary fibrosis as well. It is interesting, because one of the issues that seems to be affected is actually reflux, so there is a lot of threads that ran through these different talks.

The last talk in that session was about autoimmune interstitial lung disease. We don't normally think about that in the same kind of framework as we do idiopathic pulmonary fibrosis, but you know, it's actually pretty interesting that there are a lot of overlaps in terms of risks, including things like histopathology, so patients who have rheumatoid arthritis that's associated with unusual interstitial pneumonia pattern, have a poorer survival than those who have an NSIP pattern, so the thought is that there may be some commonalities related to histopathology that might cross between IPF and autoimmune associated interstitial lung disease.