Protein may be strongest indicator of rare lung disease, study shows

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Brent Kinder, MD

Researchers at the University of Cincinnati (UC) have discovered a protein in the lungs that can help in determining progression of the rare lung disease Idiopathic Pulmonary Fibrosis (IPF).

Researchers say the protein—Serum surfactant protein A—is superior to other IPF predictors and could lead to better decisions about treatment and timing of lung transplantation.

The study, led by Brent Kinder, MD, is published in the June 4 edition of the journal *Chest*.

Surfactant proteins are lipoproteins that allow the lungs to stretch and function. These have previously been investigated by UC pulmonary researchers Frank McCormack, MD, and Jeffrey Whitsett, MD.

Kinder and colleagues report that Serum surfactant protein A is the strongest predictor of a patient's survival in the first year after diagnosis with IPF.

"A simple blood test may give us the information we need to help determine the short term risk of death in a patient with IPF," says Kinder, an assistant professor of medicine at the UC College of Medicine and pulmonologist with UC Physicians. "This protein is a stronger predictor of the severity of illness than age, symptoms or prognostic data, like breathing tests."

IPF is scarring of the lung. As the disease progresses, air sacs in the lungs become replaced by fibrotic scar tissue. Lung tissue becomes thicker where the scarring forms, causing an irreversible loss of the tissue's ability to carry oxygen into the bloodstream.

IPF is one of about 200 disorders called interstitial lung diseases, which affect the thick tissue of the lung as opposed to more common lung ailments—such as asthma or emphysema—that affect the airways.

IPF is the most common form of interstitial lung diseases and affects about 128,000 people in the United States, with an estimated 48,000 new cases diagnosed each year. There currently are no proven therapies or cures for IPF.

Kinder, director of UC's Interstitial Lung Disease Center, says this new indicator will allow doctors to determine the severity of the disease in a fast, effective manner and will help them decide the best way to go about treating it.

"It will allow us to come to a decision about how or if to treat the IPF patient and get them enrolled in clinical trials immediately," he says. "In severe cases, it can help in scheduling a lung transplant at the most optimal time for the patient.

"Overall, this discovery could help us define the window of opportunity to appropriately try more aggressive therapies and could greatly help improve the lives of those living with IPF."

Source: University of Cincinnati (news : web)