



Project Summary

Assessing the Vascular Endothelium in Systemic sclerosis associated Pulmonary hypertension to improve Early and Rapid diagnosis (VESPER)

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Pulmonary arterial hypertension (PAH) and progressive fibrotic interstitial lung disease (ILD) are common and sadly fatal complications of Systemic Sclerosis. We still do not understand why some people with the condition develop PAH and others do not. Currently, there is no single test which predicts PAH. Doctors rely on right heart catheterisation to confirm PAH. This test is an invasive procedure which carries certain risks.

Damage to the blood vessels within the lungs are thought to be an initial step in the process which leads to both PAH and ILD. Using simple blood tests and special microscopes we can assess blood vessel damage within the body.

Recent studies suggest that these tests may help to detect PAH and ILD. These tests could be used to identify PAH and ILD at an earlier stage in systemic sclerosis. This could have important benefits in terms of patient monitoring and treatment which may improve outcomes in this fatal condition. This study hopes to shed some light on this.

The study will invite patients with and without systemic sclerosis to provide a blood test. The study will also ask patients to have a camera placed under their tongue to look specifically at the small blood vessels. The camera test takes 3-5 minutes and does not require a separate visit appointment.

The researchers will compare the results between patients with and without systemic sclerosis. It will also look to see whether these tests match with right heart catheterisation results in patients who have this test done as part of their routine care.

If we can improve our understanding of blood vessel damage in systemic sclerosis, it may help us to predict which patients are more at risk of developing PAH, and commence timely treatment. It may help provide more accurate non-invasive tests to detect PAH.