

## **TCS/16/25 - Coronary artery disease in heart failure with preserved ejection fraction**

Heart failure with preserved ejection fraction (HF-PEF) accounts for up to half of patients with heart failure (HF), and is becoming more common year-on-year. The underlying causes are not well understood and no treatments have been shown to improve symptoms or the poor outcomes associated with HF-PEF. A lack of blood getting to the heart muscle, known as myocardial ischaemia, may cause, or contribute to, HF-PEF in some patients. Myocardial ischaemia is caused by narrowings of the large heart arteries, known as coronary artery disease (CAD), and/or abnormalities of the small heart arteries, known as coronary microvascular dysfunction (CMD). We will investigate 150 patients admitted to hospital with HF-PEF to assess the prevalence of CAD and CMD (how common they are) and their role in real world patients with HF-PEF. Special heart scans (cardiac magnetic resonance imaging), heart artery dye tests (coronary angiography) and measurement of blood flow in the heart arteries (pressure wire studies) will be performed. With this information we hope to identify patients who, in the future, might benefit from treatment which could improve symptoms and life expectancy in a condition with poor outcomes and no current effective treatment options.