**Title: ESC 22: The ALL-HEART Trial: Allopurionol in the Treatment of Ischaemic Heart Disease**

**Participants: Prof Isla MacKenzie**

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**Prof Isla MacKenzie**

" - I'm Professor Isla MacKenzie, and I'm professor of cardiovascular medicine at the University of Dundee in Scotland.

Unmet Needs in Patients with Ischemic Heart Disease

 So Allopurinol is a xanthine oxidase inhibitor, and we normally use it in patients with gout to lower their uric acid levels and to try to prevent acute gout flares, but for many years, the question has been around as to whether it might have additional benefits in cardiovascular disease. So various small studies over the years have suggested it improved certain cardiovascular parameters, but until now there's never been a large outcome study like ALL-HEART.

Study Design and Eligibility Criteria

So the ALL-HEART study was a large perspective randomised, open label, blinded endpoint, or probe, trial. It was a multi-centered trial done across the UK, so in Scotland and England, in 424 general practises. We didn't include patients with severe renal impairment. We didn't include patients with class three or four heart failure, and patients in the study were all aged over 60 with ischemic heart disease. We also excluded anyone with a history of gout and anyone who was already on urate lowering therapy.

Key Results

So the study randomised patients with ischemic heart disease to receive Allopurinol 600 milligrammes daily or usual care, and what we found was there was actually no difference in the primary outcome which was non-fatal MI, non-fatal stroke or cardiovascular death. There's no difference between the Allopurinol arm and the usual care arm of the study. We also found no difference in the range of secondary outcomes we had. So MI, stroke, cardiovascular death, all-cause mortality, and various other cardiovascular outcomes, none of them showed a difference. So it was a definitively negative trial.

Impact on Future Research

So I think that we have answered the question of whether patients with ischemic heart disease should be given Allopurinol to try and prevent future cardiovascular outcomes, and I think definitively we've said no, and that's important because there have been individual patients and doctors around who have thought that that might be the case, that maybe they would benefit from the treatment. We haven't specifically looked at hyperuricemia but that's another area where it's unanswered whether they have any benefits in asymptomatic hyperuricemia. So I think at the moment, the only benefit that we know of is for patients who have gout.