How relevant is the ISCHEMIA trial to a rapid access chest pain clinic cohort of patients?

G.M. Connolly[1], J. Mora[2], E. Sammut[1], M. Kashyap[2], A. Dastidar[2], A. Gall[2], K. De Silva[2], N. Joshi[2], S. Dorman[2], J. Strange[2], T. Johnson[2]

[1]University of Bristol, Bristol, United Kingdom; [2]Bristol Heart Institute, Bristol, United Kingdom

Funding Acknowledgement: Type of funding source: None

Background: The ISCHEMIA trial demonstrated that optimal medical therapy (OMT) is not inferior to an early interventional approach for stable angina. This could significantly impact on clinical practice. This study aimed to check the relevance of the ISCHEMIA trial in a real-world population of patients referred to a tertiary centre with recent onset chest pain (CP).

Methods: In this registry study, electronic notes of all patients assessed in a Rapid Access Chest Pain Clinic (RACPC) within a 12-month period (2018–19) were reviewed. Patients were selected if they met key ISCHEMIA trial inclusion criteria.

Results: 2416 patients were assessed, 378 (15.6%) presented with typical anginal CP, 1357 (56.2%) had atypical CP and 681 (28.2%) had non anginal CP.

Of the typical CP group, 158 patients were excluded (91 known CAD, 62 ACS, 2 eGFR <30mL/min, 3 severe LVSD). This resulted in 220 patients, representing 58.2% of the typical chest pain population and 9.1% of all patients seen in RACPC. These patients had a median age of 60 years, 96 (44%) female, 119 (54.1%) had high cholesterol, 44 (20%) had diabetes, 115 (52.3%) had hypertension, 104 (47.3%) had a family history of ischaemic heart disease, and 32 (14.5%) were current smokers.

Of these 220 patients, 48 (21.8%) had a CT coronary angiogram (CTCA) requested as their first line investigation (42 completed) with 1 (2.4%) patients result suggestive of significant left main stem (LMS) disease. 15 (6.8%) patients had stress echocardiography requested as their first line investigation (13 completed), 4 (31%) were positive for inducible ischaemia. 3 (1.4%) patients had stress CMR requested as their first line investigation (2 completed), both were negative. 143 (65%) patients had an invasive coronary angiogram (ICA) requested as their first line investigation (112 completed). 8 patients had severe LMS disease and were referred for surgical opinion. A further 11 patients were referred for surgical opinion due to multivessel disease or aberrant coronary anatomy. In total 24 (21.4%) patients were treated with PCI following ICA as their first line investigation. All patients were started on medical therapy for presumed CAD with uptitration while awaiting investigations. The median wait time for a CTCA was 55 days compared to 165.5 days for ICA.

Two patients (0.9%) from the cohort of 220 patients died during the follow up period, compared to 2.5% of patients admitted from RACPC with an ACS diagnosis.

Conclusion: Patients present with undifferentiated chest pain, consequently the outcomes of the ISCHEMIA trial must be considered cautiously. Within our cohort of 2416 patients, only 9% of patients met key inclusion criteria of the trial. Ultimately, only 19.5% patients with typical chest pain were revascularised, unlike 80% of patients in the invasive arm of ISCHEMIA. It is unclear how the results of the ISCHEMIA trial will impact on UK practice, but it is clear that OMT plays a central role.