

PUBLICATIONS

HEALTH-RELATED QUALITY OF LIFE DYNAMICS IN PATIENTS WITH ISCHAEMIC CARDIOMYOPATHY ON SGLT2 INHIBITOR-BASED QUADRUPLE THERAPY: THE ROLE OF CORONARY REVASCULARISATION

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To assess 6-month dynamics of health-related quality of life (Kansas City Cardiomyopathy Questionnaire, KCCQ-12) in patients with ischaemic cardiomyopathy receiving SGLT2 inhibitor-based quadruple guideline-directed medical therapy (GDMT), according to the completeness of coronary revascularisation.

In this prospective single-centre observational study, 180 patients with left ventricular ejection fraction (LVEF) $\leq 40\%$ and multivessel coronary disease were enrolled; the modified intention-to-treat (mITT) cohort for 6-month outcome analysis comprised 174 patients: Group 1 (n=60) — complete percutaneous coronary intervention (PCI) + GDMT; Group 2 (n=56) — incomplete PCI + GDMT; Group 3 (n=58) — GDMT only. All patients received an SGLT2 inhibitor. Quality of life was assessed using the KCCQ-12 questionnaire at baseline and at 6 months.

Baseline KCCQ-12 scores were comparable between groups: 50.8 [38.3;58.9], 53.0 [44.4;63.1] and 52.7 [43.0;64.8] points in Groups 1, 2 and 3, respectively. At 6 months, scores increased to 62.0 [52.5;77.6], 64.4 [48.9;75.8] and 63.5 [54.9;74.0] points. The within-group improvement was statistically significant in all three groups: +14.9 points in Group 1 ($p < 0.001$), +6.8 points in Group 2 ($p = 0.022$) and +11.1 points in Group 3 ($p = 0.002$). No significant between-group difference was found, either unadjusted ($p = 0.289$) or after ANCOVA adjustment for baseline value and SYNTAX score (Group 1 vs Group 3: +1.5 points, 95% CI -4.9 to 7.9 ; $p = 0.647$).

Quadruple GDMT with an SGLT2 inhibitor was associated with a clinically meaningful improvement in quality of life at 6 months regardless of revascularisation strategy, in contrast to left ventricular ejection fraction, for which the benefit was specific to complete coronary revascularisation. These findings suggest that quality-of-life gains in ischaemic cardiomyopathy are driven predominantly by optimal medical therapy itself.