Aim: MBC is associated with significant worsening of health-related quality of life (HRQOL). HRQOL levels related to appetite loss, fatigue and physical functioning are significant independent factors associated with survival. Utility values for different stages of MBC and toxicities commonly associated with chemotherapy regimens are useful for health economic assessments. However, there are limited such data derived from clinical trials.

Methods: In a phase 3, randomized study (N = 1102), median overall survival with ERI was 15.9 months vs 14.5 months for CAP (HR 0.88; P = 0.056) in MBC patients (pts) previously treated with anthracyclines and taxanes. Our post-hoc analysis used a published regression algorithm to convert the European Organization for Research and Treatment of Cancer questionnaire QLQ-C30 to the European QOL-5 Dimensions (EQ-5D) questionnaire (utility). Mean (SD) utility values were estimated for relevant health states: stable disease, tumor response, disease progression. Independent linear mixed-effects models adjusting for baseline health state predicted dis-utilities for the Grade 3/4 toxicities recorded in ≥2% of pts, and alopecia.

Results: Observed mean (SD) baseline MBC utilities for ERI vs CAP were 0.704 (0.228) vs 0.691 (0.238); consistent with published values. Tumor response was associated with utility improvement: ERI vs CAP, 0.780 (0.194) vs 0.783 (0.185). Disease progression led to a detrimental utility change in CAP pts (ERI vs CAP: 0.705 vs 0.651). The following toxicities were associated with statistically significant reductions in utility vs no toxicity: vomiting (0.05 [SE = 0.02]), fatigue/asthenia (0.03 [0.01]), and dyspnea (0.03 [0.01]), all P < 0.001. Alopecia was not associated with decrement in HRQOL.

Conclusions: There is limited information on assessing the impact of MBC treatment using EQ-5D utilities. Mapping health state utility from the QLQ-C30, in the absence of EQ-5D data, offers valuable perspective on the reduction in HRQOL associated with disease progression and treatment toxicity.

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