Patient-reported outcomes in breast cancer: a longitudinal analysis of quality of life in a reference oncology center in an Upper-Middle Income Latin American country

ACCEPTANCE CODE
PCR181

Sandra Castillo-Ortiz BSN[1]; José Figueroa-Baños MD[1]; Ariana LaCruz-Marquina MD[1]; Néstor Llinás-Quintero MD[1]; Samuel Agudelo-Gamboa BS, MSc[1]; David Mejía-Zapata MD, MSc, MBA[1]; Paola Romero MD, MSc[1]

[1]Fundación Colombiana de Cancerología Clínica Vida, Medellín, Colombia

ClínicaVida
especialistas en cáncer
Fundación Colombiana de Cancerología

INTRODUCTION

- Health-related quality of life (HRQoL) is a core **patient-reported outcome (PRO)** in breast cancer care.
- Treatment effects on daily life evolve over time, yet **longitudinal PRO data from Latin America remain scarce.**
- Routine PRO monitoring can show where supportive care is most needed.

OBJECTIVE

To evaluate **changes in HRQoL over time** in patients with breast cancer treated at a reference oncology center in **Colombia**, an upper-middle income Latin American country.

METHOD

- **Design:** retrospective cohort, single center, Medellín, Colombia (2024–2025).
- **Instruments:** EORTC QLQ-C30 and breast module QLQ-BR23, at baseline and at follow-up. Scores range 0–100.
- **Analysis:** baseline data summarized descriptively; change between assessments tested with paired t-tests (mean difference, 95% CI) in patients with both assessments.
- $p<0.05$ was considered statistically significant.

RESULTS

178 patients at baseline

155 with second assessment (87.1%)

17.3 months median follow-up [IQR 16.3–17.6]

Table 1. Baseline characteristics (n = 178)

Characteristic	Median [IQR] or %
Age at diagnosis, years	**56 [47–63]**
Months from diagnosis to survey	**3 [1–4]**
Stage 0	**12.4%**
Stage I	**25.8%**
Stage II	**52.8%**
Stage III	**8.4%**
Stage IV	**0.6%**
HER2-negative	**70.8%**
ER-positive	**67.4%**
PR-positive	**62.4%**
Surgery	**84.3%**
Breast-conserving surgery	**60.7%**
Mastectomy	**23.6%**
Chemotherapy	**51.7%**
Radiotherapy	**74.2%**

Global HRQoL remained stable

77.5 ± 15.6 → 75.3 ± 22.0

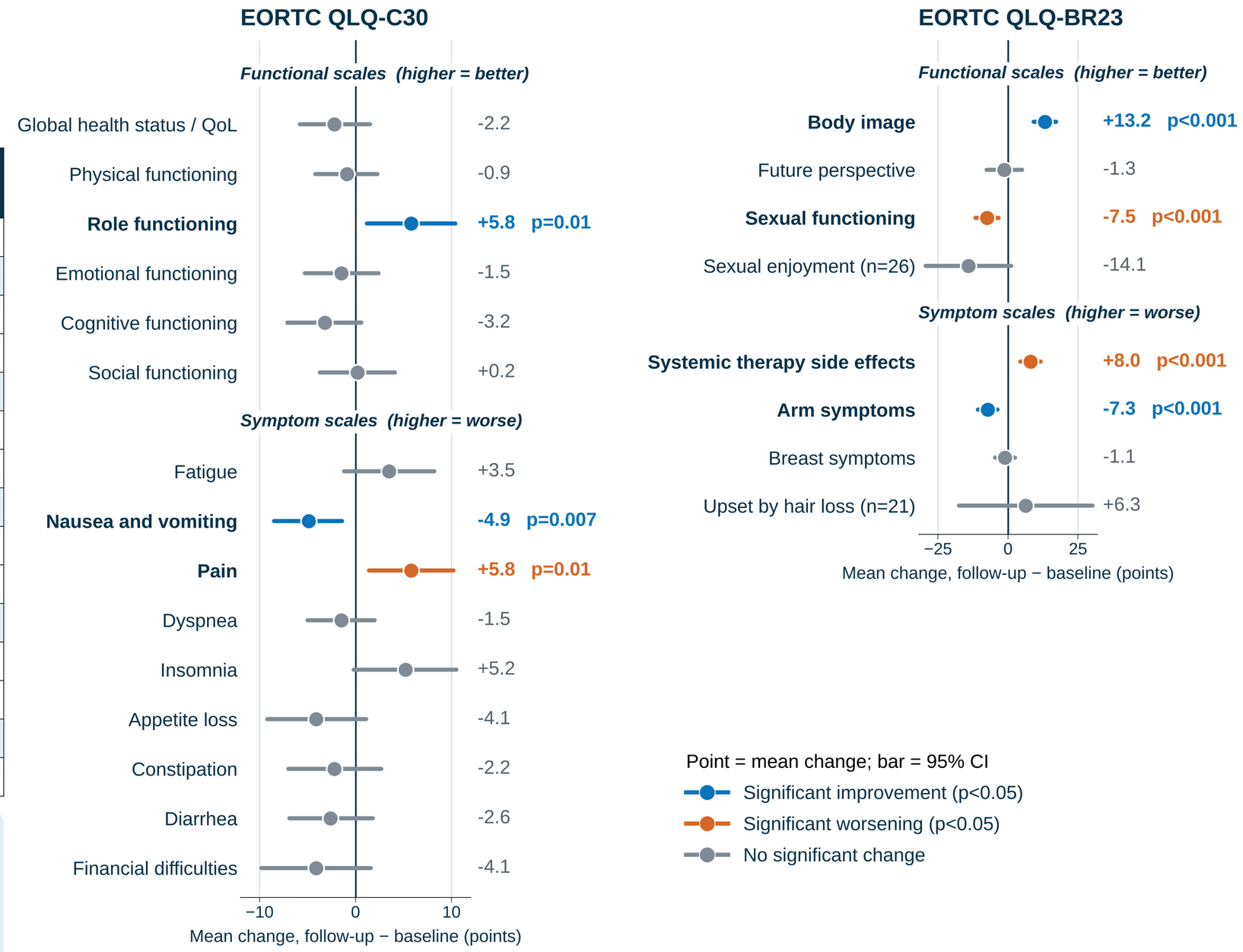
Mean difference

−2.2 points (95% CI −5.8 to 1.5); p=0.25

QLQ-C30 summary score

83.4 → 83.5 (p=0.91)

Figure 1. Mean change in HRQoL scores between baseline and follow-up, paired analysis (n = 155). **Seven domains changed significantly: four improved, three worsened.**



Colors follow the scoring direction of each scale: a rise is an improvement on functional scales and a worsening on symptom scales. Sexual enjoyment and hair loss items were answered by few patients and should be read with caution.

CONCLUSIONS

- **Global HRQoL stayed stable over 16–17 months**, but domain-level analysis showed distinct changes.
- **Improved:** role functioning, nausea and vomiting, arm symptoms and body image.
- **Worsened:** pain, systemic therapy side effects and sexual functioning.
- **Longitudinal PRO monitoring** can guide supportive care (pain control, sexual health, late treatment effects) in resource-constrained oncology settings.

Limitations: single center, retrospective design, 23 patients (12.9%) without follow-up, no adjustment for multiple comparisons.

REFERENCES

1. Aaronson NK, et al. J Natl Cancer Inst. 1993;85(5):365-76.
2. Sprangers MA, et al. J Clin Oncol. 1996;14(10):2756-68.
3. Fayers PM, et al. EORTC QLQ-C30 Scoring Manual, 3rd ed. Brussels: EORTC; 2001.

CONTACT

David Mejía-Zapata MD, MSc, MBA
david.mejiaz@clinicavida.com

No financial disclosures. AI was used for editing purposes only.