Impact of disease progression on health-related quality of life in patients with metastatic breast cancer in the PRAEGNANT breast cancer registry

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BACKGROUND

In recent years, great advances have been made in treating advanced breast cancer. However, patients with advanced breast cancer have a limited life expectancy, and many patients eventually die of disease progression. The assessment of health-related quality of life (HRQoL) is considered to be an important end point in breast cancer clinical trials and in clinical practice. HRQoL is a multidimensional construct that reflects the impact of illness and its treatment on patients’ well-being. This study aimed to analyze the impact of disease progression on HRQoL in patients with metastatic breast cancer using data from the PRAEGNANT breast cancer registry.

METHODS

The PRAEGNANT breast cancer registry is a prospective, multicenter, multi-institutional, observational registry. The study population consisted of patients with metastatic breast cancer who were treated in the participating centers. HRQoL was assessed using the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire Core 30 (EORTC QLQ-C30) and the Breast Cancer Questionnaire (EORTC QLQ-BR23). The primary endpoint of the study was the assessment of HRQoL changes from baseline to the time of disease progression.

RESULTS

The study included 264 patients with metastatic breast cancer who were treated in the participating centers. The median follow-up was 33.8 months. The median time between baseline HRQoL assessment and disease progression was 10.5 months. The median time from diagnosis to the first HRQoL assessment was 8.7 months. The median time from the last HRQoL assessment to death was 14.2 months.

The EORTC QLQ-C30 is a 34-item questionnaire composed of a Global QoL scale, five functional scales (physical, role, emotional, cognitive, and social), and nine symptom scales (fatigue, pain, dyspnea, nausea/vomiting, insomnia, appetite loss, constipation, diarrhea, and financial difficulties). The EORTC QLQ-BR23 is a 31-item questionnaire composed of a Global QoL scale, five functional scales (physical, role, emotional, cognitive, and social), and nine symptom scales (fatigue, pain, dyspnea, nausea/vomiting, insomnia, appetite loss, constipation, diarrhea, and financial difficulties). The questionnaires were administered at the beginning of the study and at the time of disease progression.

The primary analysis showed that disease progression was associated with a significant deterioration in HRQoL. Specifically, there was a significant decrease in the Global QoL scale and in the functional scales of physical, role, emotional, cognitive, and social. There was also a significant increase in the symptom scales of fatigue, pain, dyspnea, nausea/vomiting, insomnia, appetite loss, constipation, diarrhea, and financial difficulties.

Secondary analyses included exploratory subgroup analyses based on hormone receptor status, HER2 status, chemotherapy, and treatment line. These analyses suggested that disease progression had a similar impact on HRQoL across different subgroups, regardless of hormone receptor status, HER2 status, chemotherapy, and treatment line.

CONCLUSION

This study provides evidence that disease progression has a significant negative impact on HRQoL in patients with metastatic breast cancer. The findings highlight the importance of delaying disease progression in order to maintain HRQoL. Further studies are needed to confirm these findings and to identify potential interventions that may delay disease progression and improve HRQoL in patients with metastatic breast cancer.