

Abstract

Quality of Life, Fatigue Syndrome, and Pain in Patients With Progressive or Recurrent Bone and Soft Tissue Sarcomas: An Observational Study

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Introduction. Malignant bone and soft tissue tumors are rare and aggressive diseases. Evidence concerning patient-reported outcomes remains limited, particularly among patients with recurrent or progressive disease. This study aimed to characterize trajectories of quality of life, cancer-related fatigue, and pain over 24 months and to examine their associations with age and tumor type.

Methods. This prospective observational study enrolled patients with confirmed disease recurrence or progression between July 2019 and April 2021. Quality of life was assessed using the European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire Core 30, fatigue using the Brief Fatigue Inventory, and pain using the Numeric Rating Scale. Assessments were conducted at baseline and after 6, 12, and 24 months. Temporal trends and associations with age and tumor type were analyzed using linear mixed-effects models. The study was approved by the Ethics Committee of Area Vasta Emilia Centro and registered at ClinicalTrials.gov (NCT04104750).

Results. Forty-two patients were included (mean age: 41.3 ± 15.5 years; 45.2% women). Baseline characteristics did not differ significantly across tumor types. Pain and fatigue improved significantly over time, whereas global quality of life declined at 12 and 24 months. Functional and symptom-related quality-of-life scores remained stable. Older age was associated with less favorable pain and quality-of-life trajectories, while tumor type was not significantly associated with the outcomes.

Discussion. Patients with recurrent or progressive sarcomas experience a substantial symptom burden irrespective of tumor type. Although pain and fatigue improved over time, the decline in global quality of life highlights the importance of age-sensitive supportive interventions. These findings may inform personalized supportive and palliative care pathways, including regional home-based care networks.

Keywords: Sarcoma, Quality of Life, Cancer-Related Fatigue, Pain, Palliative Care

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