

Pain, Mood Disturbance, and Quality of Life in Patients With Multiple Myeloma

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Purpose/Objectives: To determine the levels of pain intensity and pain interference in patients with multiple myeloma, the relationship between pain and mood disturbance, and factors that influence quality of life (QOL).

Design: Descriptive correlational mailed survey.

Setting: A private tertiary institution in the Midwest.

Sample: Convenience sample of 346 adult patients with multiple myeloma identified through an institutional database, 206 of whom responded to the surveys.

Methods: Mailed, self-administered questionnaires: Brief Pain Inventory Short Form, Profile of Mood States, QOL Scale (Cancer Patient Version), and a demographic tool. Treatment details were obtained from the database on subjects consenting to participate.

Main Research Variables: Pain intensity, pain interference, psychologic functioning, and QOL.

Findings: 29% (n = 60) of subjects reported moderate to severe pain intensity. Significant associations were found between pain intensity and mood disturbance scores. As pain interference increased, so did levels of mood disturbance. A joint predictive model explained 74.6% of the variability in total QOL scores.

Conclusions: Cancer pain remains undertreated, and patients with myeloma are no exception. Pain and mood disturbance scores were significant predictors of QOL in this group of patients. Subjects with multiple myeloma reported higher levels of mood disturbance than patients with cancer from other studies.

Implications for Nursing Practice: The oncology nurse is in a key position to facilitate ongoing, adequate pain and psychosocial assessment of patients with myeloma. Further study is needed to determine if control of pain and mood disturbance factors has a positive effect on the various domains of QOL.

Multiple myeloma is a disseminated B-cell malignancy of mature and immature plasma cells and is the most prevalent and aggressive plasma cell neoplasm. It has an annual incidence of three to four per 100,000, occurs twice as frequently in African Americans as in Caucasians, and affects men at a slightly higher rate than women (Kyle, 1995). Myeloma accounts for 1% of all cancer deaths (Bataille & Harousseau, 1997), and approximately 14,400 new cases will be diagnosed in the United States in 2001, with an estimated 11,200 disease-related deaths (Greenlee, Hill-Harmon, Murray, & Thun, 2001). The etiology of the disease remains unknown, although an association may exist with ex-

Key Points . . .

- ▶ Unrelieved pain is common in patients with multiple myeloma.
- ▶ Adequate assessments of pain and psychological distress are important in this group of patients.
- ▶ Effective strategies to alleviate such symptoms may positively affect quality of life.

posure to radiation, petroleum products (Salmon & Cassidy, 1997), benzene, and agricultural chemicals (Herrinton, Weiss, & Olshan, 1998).

The course and growth rate of multiple myeloma vary markedly among patients; however, the disease is progressive and incurable, with a median survival of 48 months (Vidriales & Anderson, 1996). Multiple myeloma is characterized by osteolytic bone destruction without bone repair related to osteoblastic inhibition (Singer, 1997). The destruction of bone occurs as a result of distribution of myeloma cells within the marrow spaces, characterized by osteolytic lesions, pathologic fractures, and pain. Bone disease occurs in 60%–80% of patients with myeloma (Sheridan, 1996) and is a major cause of morbidity and mortality (Berenson et al., 1996). Pathologic fractures most commonly involve the long bones, vertebrae, and ribs and can occur spontaneously or as a result of minimal injury (Mundy, 1998). Severe pain may occur, resulting in decreased mobility and loss of independent functioning. Pain is the most common presenting symptom and may be chronic or a sign of progressive bone lesions. Pain, a very distressing symptom, can be an almost continuous problem (Foerster, 1993; Salmon & Cassidy, 1997).

Despite numerous therapeutic options, cancer pain remains undertreated (Jacox, Carr, Payne et al., 1994). Unrelieved cancer pain can have negative consequences on a patient's mood,

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