Palliative care helpful for cancer patients receiving bone marrow transplants
22 November 2016

Integrating palliative care into the treatment of patients undergoing hematopoietic stem cell transplantation (HCT) - commonly known as bone marrow transplantation - for cancers like leukemia and lymphoma can improve their quality of life, relieve symptoms associated with the procedure, and reduce depression and anxiety, not only during the three- to four-week hospitalization required for the procedure but also several months later. In their paper published in the Nov. 22/29 issue of *JAMA*, the research team from Massachusetts General Hospital (MGH) also reports that caregivers of patients receiving palliative care experienced less depression and were better at coping with the stress associated with the illness of their family member or friend.

"Palliative care clinicians are increasingly asked to help care for patients with solid tumors, but are rarely consulted for patients with hematologic malignancies, especially those receiving therapy designed to cure their disease," says Areej El-Jawahri, MD, director of the Bone Marrow Transplant Survivorship Program in the MGH Cancer Center, lead and corresponding author of the *JAMA* report. "The physical and psychological symptoms associated with HCT are sometimes regarded as expected and unavoidable, which - combined with the persistent misperception that equates palliative care with end-of-life care - has contributed to a lack of involvement of palliative care clinicians in the care of these patients."

After a patient with a hematologic cancer is admitted to the hospital for HCT, he or she receives high-dose chemotherapy and/or radiation therapy to eradicate diseased cells in the body. About one week into hospitalization, stem cell transplantation - actually an infusion of healthy blood-system stem cells - is conducted to begin repopulating the marrow. In addition to symptoms caused by chemotherapy - including nausea, pain, vomiting, diarrhea, fatigue and insomnia - HCT recipients must stay in a protective environment to prevent infection, limiting their interactions with family members and friends. That isolation, along with the symptoms produced by the procedure itself, contributes to psychological symptoms of depression and anxiety. For some patients, the grueling process leads to the development of post-traumatic stress disorder.

The *JAMA* study enrolled 160 patients who underwent HCT for a variety of hematologic malignancies at the MGH from August 2014 into January 2016. Participants were randomized to receive either standard care or the palliative care intervention. Within three days of their admission to the hospital, patients in the intervention group had an initial meeting with a palliative care clinician - a physician or advance practice nurse, who continued to meet with them at least twice a week during their hospitalization.

At the meetings - which could be attended by a family member or friend of the patient - clinicians first focused on establishing a rapport with patients and their caregivers. They addressed ways of managing the physical and psychological symptoms patients were experiencing and provided support and strategies for coping with distress. Patients received an average of eight palliative care visits during their hospitalizations, which lasted on average 20 days.

at the outset of the study and two weeks into process, a time when patients' blood levels are at their lowest and symptoms tend to be at their worst, patients in both groups and participating caregivers completed questionnaires assessing their mood and quality of life, with patients completing additional questionnaires regarding symptoms of their illness and those associated with the procedure.. Patients completed additional assessments three months after transplantation.

The primary question the study was designed to investigate was whether receiving palliative care
reduced the expected decline in quality of life experienced by patients at two weeks. The results indicated significantly better quality-of-life scores for those receiving the palliative care intervention than for the usual treatment group, both at the two-week and the three-month assessments. Patients receiving the palliative care intervention also reported lower levels of depression, anxiety and symptoms at two weeks and continued to experience less depression, better quality of life and fewer post-traumatic stress symptoms than the control group at three months.

Family member or friend caregivers attended 42 percent of the palliative care sessions, and at the two-week assessment caregivers in the intervention group were found to have fewer depression symptoms and improved coping skills, compared with caregivers in the control group. "Caregivers play a crucial role in supporting patients during the transplant process, and they are substantially impacted as they watch their loved ones struggle with side effects that can be emotionally challenging," explains El-Jawahri, who is an instructor of Medicine at Harvard Medical School (HMS).

She and her colleagues note that additional, larger studies are needed to assess caregiver impacts more completely, to replicate patient results at centers with more diverse patient populations, to assess the inclusion of more complete palliative care teams, to collect cost data and to adapt the palliative care intervention to assist patients receiving other potentially curative treatment for hematologic or other cancers.

Jennifer Temel, MD, of the MGH Cancer Center, senior author of the JAMA paper and an associate professor of Medicine at HMS, adds, "An important aspect of this study is its extension of the benefits of palliative care beyond patients with advanced solid tumors to those receiving curative therapy for hematologic malignancies. Our results highlight how palliative care can beneficial for patients with cancer regardless of their prognosis."

More information: JAMA, DOI: 10.1001/jama.2016.16786