For Cancer-Related Breathlessness, Fans May Be Better Bet Than Meds

Various nondrug approaches provide greater relief with fewer side effects for this common symptom of advanced cancer.

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People with advanced cancer who experience breathlessness may benefit more from non-pharmacological interventions, such as handheld fan use, than medications, researchers at the Sidney Kimmel Comprehensive Cancer Center of Johns Hopkins University in Baltimore have found.

Breathlessness is a common symptom of advanced metastatic cancer. As the body weakens, respiration becomes progressively more difficult, causing considerable anxiety and negatively affecting quality of life in the process. It is a major source of patient and caregiver distress, the researchers, led by Arjun Gupta, MD, wrote in the journal JAMA Oncology.

Oncologists have historically prescribed medications such as opioids and benzodiazepines for cancer-caused breathlessness, Gupta told MedPage Today. These drugs slow breathing, but their ability to provide relief to people with cancer is not strongly supported by available evidence.

The results of this study suggest that non-pharmacological interventions, including counseling, physical activity and touch therapy—or some combination of the three—should actually be the first line of defense. “We believe these findings should catalyze a shift in how we approach and treat breathlessness,” Gupta said.

Gupta and coauthors came to this conclusion by reviewing 29 recent studies on the impact of non-pharmacological interventions on 2,423 adults with advanced cancer. The interventions fell into several categories: respiratory, behavioral and psychoeducational, activity and rehabilitation, integrative medicine and multicomponent.

Nine of the 29 studies focused on respiratory interventions such as fan therapy and bilevel ventilation. Fan therapy is as simple as it sounds: A fan, often handheld, blows either room-temperature or cold air toward the mouth and nose of the person experiencing breathlessness. This may “fool the brain” into believing that respiration is more effective than it actually is, reducing physical discomfort. Bilevel ventilation refers to breathing on one’s own while simultaneously being supported by a ventilator.

Seven studies focused on activity and rehabilitation interventions, such as exercise therapy, respiratory training and transcutaneous electrical nerve stimulation; four focused on integrative medicine interventions, such as music therapy, acupressure, acupuncture and reflexology; and three focused on behavioral and psychoeducational interventions, such as behavioral therapy. Six of the 29 studies focused on multicomponent interventions—in other words, some combination of the four types.

In a statistical analysis of all 29 studies, the researchers found that some, although not all, of the interventions were associated with a modest to significant improvement in symptoms. Successful interventions included fan therapy and bilevel ventilation (in inpatient settings) and acupressure, reflexology and multicomponent interventions (in outpatient settings); unsuccessful interventions included behavioral therapy and relaxation.

Only five of the 29 studies reported that participants experienced any adverse effects at all, meaning that all interventions were relatively safe. By contrast, a 2016 study on opioids for the treatment of breathlessness reported that participants were 4.73 times more likely to experience nausea, vomiting, drowsiness and constipation than controls.

In view of the evidence, the researchers wrote, “Guidelines and clinical practice should evolve to incorporate non-pharmacological interventions as first-line treatment for adults with advanced cancer and breathlessness.”

However, they acknowledged that many people with cancer may face financial, logistical or physical barriers to accessing these treatments, adding several paragraphs down, “Ultimately, an individualized approach to managing breathlessness in patients with advanced cancer is necessary.”

To read about how the medication olanzapine can treat nausea and vomiting in people with advanced cancer, click here. To read about how a psychotherapy known as CALM can ease depression in people with advanced cancer, click here.

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