CAM use linked to higher mortality in breast cancer patients

A cohort study of women with breast cancer has shown that use of complementary and alternative medicine (CAM) in association with traditional therapies was associated with higher mortality compared with treatment exclusively with traditional therapy. The study, published in JAMA Network Open online 2 March, showed that compared to patients who received exclusively traditional treatments, patients who received only CAM experienced a 3.7-fold higher mortality rate, and patients who received both CAM and traditional treatments a 1.4-fold higher mortality rate.

"*While it wasn't surprising that patients who choose to forego all traditional treatments have worse outcomes, we were surprised to find the combination group also had worse outcomes. We are aware of research suggesting that types of CAM may reduce side effects of traditional treatments and we were optimistic it might boost compliance to therapy,*" senior author Daniel Boffa, Professor of Surgery at Yale School of Medicine, tells Cancerworld. "*When we went on to explore whether the combination group was skipping treatment, we found they were using significantly less radiation, endocrine, and chemotherapy treatments.*"

The findings, he adds, highlight the importance of traditional treatments, and negative consequences of skipping even a portion of them.

Lower Adherence to Standard Therapies May Explain Survival Gap

Advances in early screening mammography and new, targeted treatments have reduced overall mortality and recurrence in breast cancer. Yet, despite progress in traditional treatment options, some patients continue to choose CAM, such as dietary supplements, mind and body approaches, and acupuncture. Given advancements in traditional therapies, Boffa and colleagues felt that in the modern era of treatment it was important to examine current outcomes associated with CAM use.

For the study, the team evaluated trends in the use of CAM in women diagnosed between 2011 and 2021 with stage I to IV breast cancer using the US National Cancer Database (NCDB), a database capturing around 70% of newly diagnosed cancer patients. Of 2,169,202 women with breast cancer identified, after excluding those with missing data 2,157,219 were included in the sample. A total of 2,106,665 patients (97.6%) received traditional therapy; 273 (<0.1%) received CAM alone; 568 (<0.1%) received a combination of CAM and traditional therapies; and 49,713 (2.3%) received no treatment.

Results showed that compared with patients treated with traditional therapies, those treated with CAM alone (adjusted hazard ratio [AHR], 3.67; 95%CI, 3.03–4.44; P < .001) or no treatment (AHR, 3.53; 95%CI, 3.48–3.58; P < .001) showed the highest risks for mortality. Receipt of a combination of traditional therapies and CAM was associated with a higher mortality compared with being treated exclusively with traditional therapy (AHR, 1.45; 95%CI, 1.22 — 1.72; P < .001). In comparison to patients treated exclusively with traditional therapies, patients who received a combination of traditional therapies and CAM were less likely to receive endocrine therapy, radiation, and chemotherapy.

"*The survival disadvantage found in the combination group of patients is likely to be due to this group not completely complying with recommended treatments, like radiotherapy and hormone therapy, which if omitted may be associated with higher rates of recurrence,*" explains Boffa.

Need for Open Clinician–Patient Communication about CAM Use

The relatively low rate of CAM use documented in the study (<1% compared with estimates closer to

30% in other studies), Boffa adds, raises concerns that patients may not have been discussing their interest in alternative treatments with oncology teams. "T*his is a real shame because information on greater numbers of patients would have allowed us to get clearer signals of circumstances where CAM can be both helpful and harmful for patients,*" he says.

Inviting patients to share their interest in CAM may present an opportunity to enhance shared decision-making, particularly as patients may be planning to forego traditional treatments. "*Clinicians should consider discussing a patient's interest in CAM to be an important part of the treatment conversation. It offers the opportunity to be open and honest about the risks and benefits of CAM as well as reminding them of the importance of also complying with traditional treatments*," says Boffa.

In future studies, the team plans to look at the use of CAM in other types of cancer. "*Encouraging more patients to disclose use of CAM would allow us to do deeper research in the NCDB,*" says Boffa.

CAM Definition Limitations and Interpretation Challenges

Commenting on the research, Sharon Lum, Professor of Surgery at Loma Linda University, says, "*I suspect this study was conceived based on a clinical scenario that we see increasingly in clinical practice: patients choose to undergo treatments that are not supported by scientific evidence. We have embraced shared decision-making, but with the plethora of data sources for patients to consume, how patients arrive at informed decisions can be challenging to understand.*"

The main question, she tells Cancerworld, was the definition of CAM used in the paper, 'treatment administered by nonmedical personnel', that did not specify the specific treatment used. "*The NCDB cannot distinguish between a patient who is doing tai chi for symptom management from one who is taking anti-parasitic therapy from an online source*," she adds. In future, she notes, it will be interesting to see how patterns evolve with de-escalation of traditional therapy being tested in robust clinical trials, and increasing use of generative AI as a data source for patients.

About the Author

Janet Fricker is a UK medical writer with an MA in Physiology from the University of Oxford. She is the *News Editor of CancerWorld.* Janet has worked for the Cancer Drug Development Forum, Cancer Research UK, Lancet Oncology, European Journal of Cancer, Molecular Oncology, Ecancer Medical Science, and European School of Oncology (where she wrote the Oncopaedia sections on breast cancer). She has written for consumer publications including The Times, The Economist, The Daily Mail, The Independent and Marie Claire.