Re: Biology of Cachexia

I read with interest Dr. Tisdale’s article on the biology of cachexia. Not wanting to take anything away from his otherwise excellent article, I do have a concern about his comments on the use of hydrazine sulfate for treatment of patients with cancer cachexia. He mentions that hydrazine was “demonstrated to favorably influence the abnormal glucose in protein metabolism in cachectic cancer patients and to maintain or even increase body weight,” with references to two articles by Chelebowski et al. (2–3) published in the 1980’s. I would like to point out that in the second of the two articles (3), although more patients who received hydrazine gained weight than patients who received placebo, the exact amount of weight gain was apparently small and not included in the report. Furthermore, three randomized trials involving 636 patients compared hydrazine sulfate with placebo (4–6). In all three studies, hydrazine sulfate was found to be no better than the placebo. In fact, quality of life was substantially worse among patients who received hydrazine. A review of the Cancer and Leukemia Group B (CALGB) article (4) by the General Accounting Office of the U.S. federal government led to a reply (in the form of a letter to the editor) (7) from some of the authors associated with the CALGB study in which they stated that “there was no benefit in terms of response rate, median survival, or nutritional variables for the patients who received hydrazine sulfate compared to those who received placebo.”

My concern is that the seemingly favorable mention of hydrazine sulfate in Dr. Tisdale’s article does little to help cancer patients. Hydrazine has clearly been shown to be of no value whatsoever in the treatment of cancer or cancer cachexia. Not mentioning the results of the follow-up studies on hydrazine could potentially harm desperate patients seeking any help they can get.

BENTON M. WHEELER

References


Note

Correspondence to: Benton M. Wheeler, M.D., West Clinic, P.C., Memphis, TN 38117

Response

I would totally agree with Dr. Wheeler that the most recent clinical studies on hydrazine sulfate in a large group of patients with advanced non-small-cell lung cancer (1,2) and advanced colorectal cancer (3) failed to support the earlier data on the efficacy of this agent in the treatment of cachexia. Unlike the earlier studies, which were single-arm trials (4,5), these later studies were randomized, placebo-controlled, and double-blinded and showed a trend for a faster time to progression, a poorer survival, and poorer quality of life in the hydrazine sulfate treatment arm of the trial. The comments in my review on the biology of cachexia (6) were meant to describe the different approaches that have been used to try to normalize the catabolic changes that occur in patients with cancer cachexia rather than endorsing a particular treatment, and they were not meant to be construed as an in-depth analysis of the use of hydrazine sulfate in this context.

MICHAEL J. TISDALE

References


Note

Correspondence to: Michael J. Tisdale, Ph.D., DSC, Aston University, Aston Triangle, Birmingham B4 7ET, U.K. E-mail: pharmsci@aston.ac.uk

Chemo-Hormonal Therapy of Breast Cancer: Lack of Interaction Between Lab and Clinic

In the seventies, studies at the Netherlands Cancer Institute on Grunder mice established that mammary carcinomas are mixed populations of hormone-dependent and hormone-independent tumor cells (1,2). The latter population could be selected for by transplanting mammary tumors into hormone non-treated castrated mice because, in the absence of estrogen and progesterone, only the hormone-independent subpopulations could form outgrowths.