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Hormone thought to slow aging associated with increased risk of cancer death

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According to a new study accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology & Metabolism* (JCEM), older men with high levels of the hormone IGF-I (insulin-like growth factor 1) are at increased risk of cancer death, independent of age, lifestyle and cancer history.

IGF-I is a protein hormone similar in structure to insulin and is regulated in the body by growth hormone (GH). Levels of GH and IGF-I decline progressively with age in both men and women and this drop is thought to be related to deteriorating health conditions found with advanced age. In an attempt to combat aging some people use GH as its actions elevate IGF-1.This study however showed that older men who had higher levels of IGF-I were more likely to die from a cancer-related cause in the following 18 years than men with lower levels.

"This is the first population-based study to show an association of higher IGF-I levels with increased risk of a cancer-related death in older men," said Gail Laughlin, PhD, of the University of California San Diego, and corresponding author of the study. "Although the design of this study does not explicitly show that the higher IGF-I levels caused the cancer death, it does encourage more study as well as a reexamination of the use of IGF-I enhancing therapies as an anti-aging strategy."

In this study researchers used data on 633 men aged 50 and older from the Rancho Bernardo Study, a population-based study of healthy aging. Study participants took part in a research clinic examination between the

years of 1988 and 1991 where their blood was obtained and IGF-1 was measured. All participants had their vital status followed through July 2006. Researchers found that men in this study who had IGF-I levels above 100 ng/ml had almost twice the risk of cancer death in the following 18 years than men with lower levels.

"In this study, the increased risk of cancer death for older men with high levels of IGF-I was not explained by differences in age, body size, lifestyle or cancer history," said Jacqueline Major, PhD, lead author on the study, now at the National Cancer Institute. "If these results are confirmed in other populations, these findings suggest that serum IGF-I may have potential importance as a biomarker for prognostic testing."

More information: The article, "Insulin-like Growth Factor-I (IGF-I) and Cancer Mortality in Older Men," will appear in the March 2010 issue of JCEM.

Provided by The Endocrine Society

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