

Dense bones linked to raised risk for prostate cancer

July 29 2010

Men who develop prostate cancer, especially the more aggressive and dangerous forms that spread throughout the body, tend to retain denser bones as they age than men who stay free of the disease, suggests new research from Johns Hopkins and the National Institute on Aging (NIA), part of the National Institutes of Health.

The finding, published in the July *British Journal of Urology International*, could help scientists gain a better grasp on what causes <u>prostate cancer</u> and its spread.

Researchers have long known that prostate cancers that spread, or metastasize, often migrate to bone. That idea led Stacy Loeb, M.D., a resident in the Department of Urology at the Johns Hopkins University School of Medicine, and her colleagues to wonder whether there is a connection between bone characteristics and prostate cancer development and metastasis.

"We reasoned there may be some difference between <u>men</u> who develop prostate cancer, especially metastatic disease, and those who don't, and it was logical to see if there was something different about their bones," says Loeb.

To investigate, she and her colleagues used data from the NIA's Baltimore <u>Longitudinal Study</u> of Aging , a long-term study that has tracked various health-related information for hundreds of Baltimore-area participants since 1958. The researchers collected data on the bone



mineral density of 519 men, measured from 1973 to 1984. They then used the same collection of data to see which men were eventually diagnosed with prostate cancer.

Typically, bone density declines with age in both men and women. However, Loeb and her colleagues found that the 76 men in their study who went on to develop prostate cancer had bone density that remained significantly higher as they aged, compared with those who remained cancer free. The findings held up even after the researchers accounted for lifestyle factors that might influence bone density, such as smoking, <u>body mass index</u>, and intake of dietary calcium and vitamin D.

Further examination showed that the 18 men who developed the highrisk form of the disease retained the highest bone density, but the researchers caution that the number of patients is too small to make any final conclusions about bone features and metastatic disease.

Loeb and her colleagues say that their findings don't mean that bone density scans should be used as a screening tool for prostate cancer. Rather, their goal was to better understand the link between prostate cancer and bone. They say their results suggest that the same factors that influence bone density, such as sex hormones or growth factors in bone, may also be spurring prostate cancer to develop and metastasize. She and her colleagues plan to continue searching for what common factors connect <u>bone density</u> and prostate cancer in future studies.

"If we can elucidate the underlying pathways, we could develop strategies for preventing prostate cancer from occurring or spreading," Loeb says.

More information: For more information, go to: <u>urology.jhu.edu/</u>



Provided by Johns Hopkins Medical Institutions

Citation: Dense bones linked to raised risk for prostate cancer (2010, July 29) retrieved 3 May 2024 from <u>https://medicalxpress.com/news/2010-07-dense-bones-linked-prostate-cancer.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.