

## **Study shows that prostate cancer increases the risk of bone fracture**

**May 14, 2008**

As unlikely as it sounds, scientists at the Garvan Institute for Medical Research have shown that there is a link between prostate cancer and a higher risk of bone fracture.

Analysis of data from Garvan's Dubbo Osteoporosis Epidemiology Study suggests that men with prostate cancer face a 50% higher risk of fracture, which increases to nearly doubled risk if they are receiving treatment. The results have just been published online in the prestigious international journal *Bone*.

"This is a controversial area which has been under discussion for at least three years," said Garvan's Associate Professor Tuan Nguyen, who initiated the study after hearing speculation on the concept. "It has taken us about two years to assemble and analyse the data. The results suggest a link between the two diseases, although we still don't understand the mechanisms."

Professor Nguyen and his colleagues have studied 822 men from Dubbo for nearly 20 years. These men were all aged 60 or over in 1989 when the study began. Of the 822 men, 43 subsequently developed prostate cancer. Twenty-two of the men received ADT (androgen deprivation therapy) and 21 did not. Compared to the men without prostate cancer, those with the disease showed a 50% increase in the risk of fracture. For those being treated with ADT, the risk increased approximately twofold.

"The results have important implications in practice for several reasons," said Nguyen. "First, most of the men who developed prostate cancer started out with a higher BMD (bone mineral density) than average. Second, developing prostate cancer clearly increased their risk of fracture. Third, ADT treatment doubled their risk of fracture."

"There are factors at play that we do not yet understand. Obviously the higher BMD of the men with prostate cancer did not protect them against fracture. Exactly what mechanisms are at work are unclear."

"Osteoporosis in men often remains untreated, even after a fracture. It is highly unlikely, therefore, that any of the men at higher risk will be receiving anti-fracture therapy."

"The clear message that comes out of this study is that men with prostate cancer should consider seeking evaluation for osteoporosis, particularly if they are being treated with ADT."

"More and more we are seeing ways in which diseases are connected. You can't isolate osteoporosis from cancer from diabetes and so on. In treating one disease, we must be careful not to increase the risk of another. As we understand these connections, we learn how better to treat the whole person."

## **ABOUT GARVAN**

The Garvan Institute of Medical Research was founded in 1963. Initially a research department of St Vincent's Hospital in Sydney, it is now one of Australia's largest medical research institutions with approximately 400 scientists, students and support staff. Garvan's main research programs are: Cancer, Diabetes & Obesity, Immunology and Inflammation, Bone, and Neuroscience. The Garvan's mission is to make significant contributions to medical science that will change the directions of science and medicine and have major impacts on human health. The outcome of Garvan's discoveries is the development of better methods of diagnosis, treatment, and ultimately, prevention of disease.

### **All media enquiries should be directed to:**

Alison Heather 02 9295 8128 or Jackie Crossman on 0402 218 662