News of Prostate Cancer Boosts Heart Attack Rates

In the year following diagnosis, the risk of having a heart attack was 50% higher compared with norms.

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Telling a man that he has prostate cancer can give him a heart attack—literally, Dr. Fang Fang said at a symposium on genitourinary cancers.

Men given a diagnosis of prostate cancer were 50% more likely to have a myocardial infarction during the following year compared with men not diagnosed with prostate cancer in an analysis of data from more than 5 million Swedish men, reported Dr. Fang of the Karolinska Institutet, Stockholm, and her associates.

The risk of dying from a cardiovascular event also was 50% higher in the year after a prostate cancer diagnosis compared with no prostate cancer detection in the study, which used data from 1961 through 2004.

In the referent group with no diagnosis of prostate cancer, the investigators calculated 94,044,274 person-years and 883,736 fatal cardiovascular events. Meanwhile, men with a diagnosis of prostate cancer accounted for 149,982 person-years and 7,429 fatal cardiovascular events, for a relative risk of 1.5.

Until 1990, the risk of being hospitalized for cardiovascular problems was 30% higher in the year after diagnosis of prostate cancer.

The first week in particular was a critical time, especially in younger men and in those with no previous history of cardiovascular disease.

"Diagnosis of prostate cancer is a severely stressful event illustrated in the increased risk of death from cardiovascular events immediately following diagnosis," Dr. Fang said.

"Clinical practice, including careful delivery of the diagnostic message and supportive services offered immediately after the diagnosis, may benefit this vulnerable group of patients," she said.

Previous studies have linked emotional stress from some life events to cardiovascular morbidity and mortality. Deaths caused by cardiovascular problems increased two- to threefold after a 1994 earthquake in Los Angeles compared with population data from the previous 3 years, she noted.

The death of a child, physiologic challenges, even the excitement of World Cup Soccer matches have been associated with increased cardiovascular risk.

The current study used data from several Swedish national registries to look at the association between prostate cancer diagnosis and cardiovascular risk.

In the first week after learning of their prostate cancer diagnosis, men had an eightfold increased risk of dying of cardiovascular events, compared with men with no prostate cancer; the investigators reached this conclusion after adjusting for effects of age and calendar year of diagnosis.

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As time went by during the year following diagnosis, the risk of a fatal cardiovascular event remained elevated but fell—to a quadrupled risk out to the end of the month after diagnosis, a 40% increased risk out to the 6-month mark, and a 10% increased risk for the rest of that first year.

Men aged 54 years or younger were nine times more likely to die from cardiovascular events within a year of prostate cancer diagnosis compared with men who had no prostate cancer. That relative risk also remained elevated but decreased with age—to a twofold risk in men aged 55-74 years and a 30% increased risk in men aged 75 years or older.

Among men diagnosed with prostate cancer, those with no personal history of cardiovascular disease were 50% more likely to have a myocardial infarction in the year after diagnosis compared with men with a history of cardiovascular disease.

The risk for thrombosis increased more than threefold, and risks for stroke or other heart disease also increased in the year following prostate cancer diagnosis when men with no history of cardiovascular disease were compared with those who had a history of cardiovascular problems.

By time period, the risk of cardiovascular death after prostate cancer diagnosis was highest during 1961-1970, tripling in men diagnosed with the cancer compared with those with no diagnosis. That declined to a twofold increased risk of a fatal cardiovascular event after prostate cancer diagnosis during 1971-1980, and a 30% increased risk with diagnosis during 1981-1990, compared with men without prostate cancer.

From 1991 on, "the relative risk for fatal cardiovascular disease went flat" and was no different in men who were or were not diagnosed with prostate cancer. "What happened here?" Dr. Fang asked rhetorically.

But the risk of a nonfatal cardiovascular event still was 14% higher for men in the year following a prostate cancer diagnosis compared with men not diagnosed with prostate cancer.

Despite a leveling of the mortality risk, according to the most recent data, Dr. Fang indicated the risk of cardiovascular events remains a concern, which should be addressed with counseling and other supportive services.

The risks associated with age and the calendar year of diagnosis remained after adjustment of each category for the effects of calendar year or age.

The symposium was sponsored by the American Society of Clinical Oncology, American Society for Therapeutic Radiology and Oncology, and the Society of Urologic Oncology. ■

Data May Ease Concerns About Risks From GnRH Agonists

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Adjuvant androgen deprivation therapy with a gonadotropin-releasing hormone agonist did not increase deaths from cardiovascular causes in a randomized, controlled clinical trial that enrolled 945 men with locally advanced prostate cancer from 1987 to 1992.

"There's been growing concern about potential adverse effects from the use of hormonal therapy in prostate cancer," said Dr. Jason A. Efstathiou, lead author of a new analysis that made the finding. "This study perhaps provides some evidence to put at ease some of those concerns."

Dr. Efstathiou of Harvard Medical School, Boston, has no association with companies that make gonadotropin-releasing hormone (GnRH) agonists.

He presented the study at a symposium on genitourinary cancers sponsored by the American Society of Clinical Oncology, the American Society for Therapeutic Radiology and Oncology, and the Society of Urologic Oncology.

He and his associates analyzed data from the Radiation Therapy Oncology Group (RTOG) 85-31 study, a large, multicenter, prospective, randomized, controlled trial that compared radiotherapy for locally advanced prostate cancer to radiotherapy plus adjuvant goserelin. The 477 patients randomized to combination therapy took goserelin for a median of 4 years. In the radiotherapy-alone arm, 64% of 468 patients received salvage GnRH agonist therapy for a median of 3 years after the end of radiotherapy.

During a median follow-up of 8 years, 574 men died in the trial, 117 (20%) of them from cardiovascular-related causes. The treatment groups did not differ significantly in the rate of cardiovascular-related deaths, Dr. Efstathiou reported. In the combination therapy group, 65 (14%) men died from cardiovascular causes; meanwhile, there were 52 (11%) cardiovascular-related deaths in the radiotherapy-alone group.

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The 9-year cumulative cardiovascular mortality rates were 8% for men who received adjuvant goserelin, and 11% for men treated without adjuvant goserelin. The 5-year cumulative incidence of cardiovascular mortality was 6.5% with adjuvant goserelin and 4.1% without it. These differences between groups were not statistically significant.

The study's finding of no increase in cardiovascular-related mortality remained even when excluding patients from the radiotherapy-only group who received salvage GnRH agonist therapy, or when applying alternative definitions of cardiovascular mortality, or when imputing missing data, or when limiting the analysis to high-risk subjects.

Traditional cardiac risk factors—including the presence of cardiovascular disease or diabetes mellitus—were significantly associated with increased cardiovascular mortality.

GnRH agonist therapy has been shown to decrease the risk of death from prostate cancer in men with locally advanced prostate cancer; in some studies it decreased the all-cause mortality risk. Use of GnRH agonist therapy has increased markedly for men with prostate cancer, including those with lower-stage disease and in older men with significant competing causes of mortality, Dr. Efstathiou noted.

Two separate, large, claims-based analyses have suggested that men with prostate cancer who are treated with GnRH agonists may be at greater risk for new coronary heart disease, myocardial infarction, or diabetes (J. Clin. Oncol. 2006; 24:4448-56;Cancer 2007;110:149-500). Little has been known about the potential effect of GnRH therapy on cardiovascular-related mortality, which inspired the current study.

Although it found no increase in cardiovascular-related deaths from GnRH agonist therapy, this does not exclude the possibility that GnRH agonist therapy may be associated with other problems that could lead to deaths, including diabetes, anemia, or fractures, Dr. Efstathiou said.

He received a merit award for his poster and oral presentation at the meeting. ■