Deaths from pancreatic cancer rise, fall along racial lines

Trends among whites and African Americans go in opposite directions

ATLANTA – November 12, 2013—Pancreatic cancer death rates in whites and blacks have gone in opposite directions over the past several decades in the United States, with the direction reversing in each ethnicity during those years. The finding comes from a new study by American Cancer Society researchers, who say the rising and falling rates are largely unexplainable by known risk factors, and who call for urgent action for a better understanding of the disease in order to curb increasing death rates. The study appears early online in the Journal of the National Cancer Institute.

Cancer of the pancreas remains one of the deadliest cancer types. It is the fourth leading cause of cancer death in the United States, estimated to cause 38,460 deaths in the U.S. in 2013. While mortality from most other major cancers as well as from all cancers combined has been dropping for more than two decades, deaths from pancreatic cancer have been increasing in recent years. Cigarette smoking, obesity, and red and/or processed meat have been linked to the disease, but not much is known about its major causes. Other suspected lifestyle risk factors include low vegetable and fruit intake, physical inactivity, and alcohol consumption.

To better understand the causes and risk factors for pancreatic cancer, researchers led by Jiemin Ma, Ph.D., now affiliated with Brigham and Women's Hospital in Boston examined long-term disease trends in pancreatic cancer death rates in the United States between 1970 and 2009. They found in white men, pancreatic cancer death rates decreased by 0.7% per year from 1970 to 1995, then reversed, increasing by 0.4% per year through 2009 (the latest year for which data was available). Among white women, rates increased slightly from 1970 to 1984, stabilized until the late 1990s, then increased by 0.5% per year through 2009. In contrast, death rates among African Americans increased between 1970 and the late 1980s (women) or early 1990s (men), after which they began to decrease. However, death rates continued to be substantially higher in blacks than in whites in both men and women.

The authors say the difference in mortality trends between blacks and whites are not fully explained by differences in patterns of smoking, widely recognized as the main contributor to decreases in pancreatic cancer death rates. Smoking prevalence has decreased in both blacks and whites since 1965. The authors surmise that other factors may have modified the impacts of smoking on pancreatic cancer, and say further studies on the mechanisms by which smoking causes pancreatic cancer are warranted.

While obesity has been linked with a 20% increased death risk from pancreatic cancer, the lack of an increase in pancreas cancer mortality rates in blacks, among whom obesity is more prevalent, would make obesity alone an unlikely culprit. In addition, improvements in diagnostic techniques may have contributed to increasing incidence and mortality rates among whites by identifying pancreatic cancers that previously went undiagnosed. But a lack of reliable long-term data makes it difficult to evaluate the potential influence of other suspected risk factors, like meat and vegetable intake. The authors say the decreasing mortality trend in African Americans over the past 10 to 15

years is particularly interesting, as the factors that are likely contributing to recent increases in pancreatic cancer deaths in whites (e.g.: obesity, diabetes, and improved diagnosis) have also increased in African Americans.

“This study underscores the need for urgent action on several fronts,” said Ahmedin Jemal, DVM PhD, senior author of the paper. “We need to invest more into pancreatic cancer research to understand why this disease is rising or falling in different races. In the meantime, we have to address modifiable risk factors such as obesity and smoking to reduce the future burden of pancreatic cancer in all populations.”

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Editorial: Pancreas Cancer on the Rise: Are We Up to the Challenge? JNCI J Natl Cancer Inst (2013) doi: 10.1093/jnci/djt316 First published online: November 7, 2013
