Testing athletes' hearts may cut deaths

By CARLA K. JOHNSON, Associated Press Writer, Oct 4, 2006

Testing athletes' hearts dramatically lowered the rate of sports-related sudden cardiac deaths in Italy, a study suggests, but experts said it was not clear such an effort would have as big a payoff in the United States.

There are roughly two dozen sports-related deaths of high school and college students from sudden cardiac arrest in the United States each year. Only a handful of schools require electrocardiogram, or EKG, screening.

Since 1982, Italy has required all athletes to get EKGs for hidden heart problems before playing competitive sports, and about 2 percent are disqualified because of heart problems.

Researchers from the University of Padua Medical School analyzed trends in sudden deaths from heart problems before and after the program began. They looked at both athletes and non-athletes, ages 12 to 35, in the Veneto region of northeastern Italy between 1979 and 2004.

They found that, among athletes, the rate of sudden deaths fell by 89 percent over the 25 year-period. The rate among non-athletes did not change.

Dr. Barry Maron, an expert on heart problems in athletes at the Minneapolis Heart Institute Foundation, praised the research, which appears in Wednesday's Journal of the American Medical Association.

"This is an important paper," Maron said. "The findings show for the first time that pre-participation screening of young athletes is effective, not only in recognizing otherwise unsuspected heart disease, but also because that recognition actually reduces the risk of sudden cardiac death during sports."

Maron said it would be difficult and unlikely for the United States to gear up for a similar program to screen what he estimated would be 10 million people a year.

Each year in the United States, there are 20 to 25 sudden cardiac deaths among high school and college athletes, according to data collected by the National Center for Catastrophic Sport Injury Research.

A few U.S. universities now run screening programs that include EKGs, said Ron Courson, director of sports medicine at the University of Georgia, which has done the tests on would-be athletes for the past 12 years.

During that time, only one athlete has been disqualified because of detected heart problems, although about 10 to 12 students are found to have minor problems. They are treated and allowed to play, Courson said. The testing costs about $20,000 a year, he said.

"In the U.S., the leading cause of death in athletic systems is cardiac arrests," he said, applauding the Italian study. "The more data we have on this, the better equipped we are to make a decision."

An accompanying editorial raised questions about the study, noting that the sudden cardiac death rate before Italy's screening program was high compared to rates found in other studies. And the lowest annual death rate achieved after screening was similar to the U.S. rate for high school and college athletes from 1983-93.

The editorial also noted that different heart conditions are the most frequent cause of exercise-related sudden death in the two countries.

"I think we have to be very cautious," said editorial co-author Dr. Paul Thompson of the University of Connecticut. "You can actually cause problems by screening. There are a lot of abnormalities out there that, if left alone, won't actually do harm, and screening could lead to people getting procedures done that aren't necessary."

He added: "There's a large medical-industrial complex willing to embrace screening, and they just happen to sell the tools used for screening."

Drs. Gaetano Thiene and Domenico Corrado, co-authors of the Italian study, said their country's higher mortality rates can be explained by the older age and higher proportion of men compared to the U.S. athletes.

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