

Early repolarization pattern is associated with cardiac risk among the middle aged

July 27 2010

The prevalence of early repolarization pattern (ERP) among 35 to 54 year olds is higher than previously thought, and has a clear link to an increased risk of cardiac death, especially among men. These findings from the MONICA/KORA study, a prospective, population-based case-cohort study of middle-aged individuals of Central-European descent, are published in this week's *PLoS Medicine* and provide a more accurate picture of the relationship between ERP and cardiac mortality than was previously known.

Stefan Käb from the University Hospital Munich and colleagues investigated the prevalence of ERP and its association with cardiac mortality and with death from any cause in the MONICA Project (MONitoring of Trends and Determinants in Cardiovascular Disease), a study that has examined cardiovascular disease in 10 million people in 21 countries; KORA denotes the study done in the Augsburg region of Germany.

The researchers selected 1945 MONICA/KORA participants aged 35-54 years from a source population of about 6,000 people. They analyzed the ERP (recorded in 1984-1985 or 1989-1990) of this subcohort and ascertained the cause of death for those participants who died during an average of 19 years of follow-up. The overall prevalence of ERP was 13.1%, and ERP was associated with cardiac mortality, particularly among younger and male participants.

Among men and women aged 35-54 years, having ERP was associated

with a nearly doubled risk of cardiac death, report the researchers. Among men aged 35-54 years, having ERP was associated with an increase in the risk of cardiac death by 2.65-fold.

An ERP localized to the bottom of the heart (inferior localization) was associated with an increased risk of [cardiac death](#) among both sexes by more than 3-fold and among men by more than 4-fold in this age group. Finally, ERP was also significantly associated with an increased risk of all-cause mortality but less strongly than with cardiac mortality, the authors report.

More information: Sinner MF, Reinhard W, Muller M, Beckmann B-M, Martens E, et al. (2010) Association of Early Repolarization Pattern on ECG with Risk of Cardiac and All-Cause Mortality: A Population-Based Prospective Cohort Study (MONICA/KORA). PLoS Med 7(7): e1000314. [doi:10.1371/journal.pmed.1000314](https://doi.org/10.1371/journal.pmed.1000314)

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