New Study Identifies Possible Predictor for Women’s Longevity

Telomere length associated with rate of aging and maternal age at birth of last child

CLEVELAND, Ohio (December 7, 2016)—Death and taxes have long been said to be the only two things guaranteed in life. Exactly when someone will die, in most instances, remains a mystery. A new study, however, identifies one possible predictor—specifically, telomere length. This has been linked to longevity, as well as the ability to bear children at an older age. The study is being published online today in Menopause, the journal of The North American Menopause Society (NAMS).

Several studies have already shown that late maternal age at last childbirth is positively associated with maternal longevity. The Long Life Family Study (LLFS) reported that the odds of living up to the top fifth percentile were two times higher for women who had their last child past the age of 33 years than for those who had their last child before the age of 29. The study “Telomere length is longer in women with late maternal age,” used data from LLFS to show that certain factors associated with the rate of aging and longevity, such as telomere length, are also associated with later maternal age at the birth of the last child.

Telomeres are essential parts of human cells that affect how our cells age. They are caps at the end of each strand of DNA that protect the chromosomes, like the plastic tips at the end of shoelaces. Telomeres provide protection to chromosomes during the replication process to prevent the loss of DNA strands. As people age, the length of telomeres decreases. Longer lengths are typically associated with better health.

In this study, the proportion of women in the longest telomere tertile was higher for women in the fourth quartile of maternal age at the birth of their last child than in the first quartile (35.7% vs 20.2%). Compared with women who had their last child at 29, women with a later age at birth of their last child were found to have increased odds of being in the longest tertile of telomere length.

“With longevity and the ability to bear children at an older age associated with longer telomere length, this study suggests that a higher maternal age of successful child bearing may be a marker of healthy aging,” says Dr. JoAnn Pinkerton, NAMS executive director. “However, it’s important to remember that personal and social factors often influence childbearing age, and these factors may not have any relation to either a woman’s ability to bear children at later ages, longevity, or telomere length.”

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Founded in 1989, The North American Menopause Society (NAMS) is North America’s leading nonprofit organization dedicated to promoting the health and quality of life of all women during midlife and beyond through an understanding of menopause and healthy aging. Its multidisciplinary membership of 2,000 leaders in the field—including clinical and basic science experts from medicine, nursing, sociology, psychology, nutrition, anthropology, epidemiology, pharmacy, and education—makes NAMS uniquely qualified to serve as the definitive resource for health professionals and the public for accurate, unbiased information about menopause and healthy aging. To learn more about NAMS, visit www.menopause.org.