Age at natural menopause and osteoporosis: A genomic appraisal

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Menopause (end of menstruation) is a hallmark event concerned with the end of female’s reproductive life. Throughout the last decade the interest in the mechanisms behind ovarian aging and the timing of natural menopause has increased since it has a great cultural, social and epidemiological implications for female’s fertility, health and health risks. Osteoporosis, one of the profoundly postmenopausal associated health risk, as stated by WHO (1991) is “a disease characterized by low bone mass and micro-architectural deterioration of bone tissue, leading to enhanced bone fragility and a consequent increase in fracture risk”. Studies have revealed menopause causes loss of ovarian steroids and estrogen that have been significant correlated with loss of bone mineral density. Also, genomic markers particularly concerned with the variants of Vitamin D receptor gene, ATP6V1G, ESR1, MHC, COLIA 1 and TGF-β1 genes have been found to be associated with decreased bone density and therefore serves to be a potential marker for estimating osteoporosis risk. Thus, an attempt to evaluate this menopause associated genes in addition with an insight into the lifestyle factors must be done in different populations, contributing to the development of holistic women specific public health related policies.

Biography

Mahima Gulabani is a graduate and post-graduate in Anthropology with specialization in Biological Anthropology, with an excellent academic record from the University of Delhi. I am currently a Senior Research Fellow at University of Delhi, pursuing my Ph.D. in Molecular Anthropology (Molecular Genetics) with regard to study related to women’s reproductive health among Indian Populations.