Latin american genes: The great forgotten in rheumatoid arthritis

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Abstract

The successful implementation of personalized medicine will rely on the integration of information obtained at the level of populations with the specific biological, genetic, and clinical characteristics of an individual. However, because genome-wide association studies tend to focus on populations of European descent, there is a wide gap to bridge between Caucasian and non-Caucasian populations before personalized medicine can be fully implemented, and rheumatoid arthritis (RA) is not an exception. In this review, we discuss advances in our understanding of genetic determinants of RA risk among global populations, with a focus on the Latin American population. Geographically restricted genetic diversity may have important implications for health and disease that will remain unknown until genetic association studies have been extended to include Latin American and other currently under-represented ancestries. The next few years will witness many breakthroughs in personalized medicine, including applications for common diseases and risk stratification instruments for targeted prevention/intervention strategies. Not all of these applications may be extrapolated from the Caucasian experience to Latin American or other under-represented populations.