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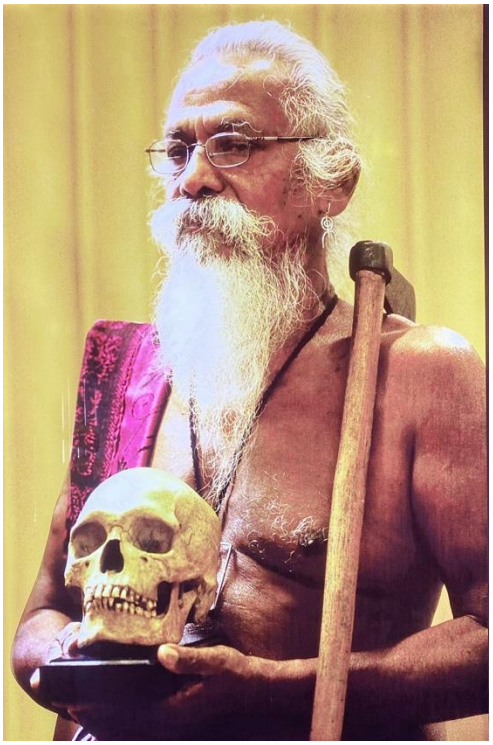
Vedda of Sri Lanka has close genetic affinity with the Indian populations: a new study



In a landmark study published recently in the journal *Mitochondrion*, ten researchers from five institutions have unveiled significant findings regarding the genetic history of the Vedda population, an indigenous group of Sri Lanka. The study, which involved a comprehensive analysis of high-resolution autosomal and mitochondrial genomes, sheds new light on the initial peopling of Sri Lanka and the ancient genetic ties between the Vedda and other populations in Asia.

“The language isolate Vedda, who are among the least studied indigenous populations in Sri Lanka, have long intrigued scientists and historians alike due to their unique linguistic and cultural characteristics. This study, therefore, unraveling the mysteries of their genetic origins and affinities with Indian populations,” said Dr. K. Thangaraj one of the senior authors of the study and JC Bose Fellow at the CSIR-Centre for Cellular and Molecular Biology, Hyderabad.

Key findings from the research indicate that despite the lack of close linguistic similarities, the Vedda people share a significant genetic link with the ethnic populations in India. "Our autosomal analyses suggest a close genetic connection between the Vedda and Indian ethnic populations speaking various tongues, pointing towards a deep-rooted history that predates linguistic diversifications," stated Prof. Gyaneshwer Chaubey, molecular Anthropologist at the BHU, Varanasi.

“Maternal DNA analysis supports the existence of an ancient link, reinforcing the notion of a shared genetic heritage. The study proposes that the Vedda population has undergone genetic drift and a recent bottleneck, resulting in a unique genetic makeup with limited gene flow from neighboring Sinhalese and Sri Lankan Tamil populations,” said the lead author, Dr Ruwandi Ranasingh, from Colombo University, Sri Lanka.

Anjana Welikala, the first author of the study, stated that this unique discovery challenges the conventional isolation-by-distance model and underscores the distinct demographic history of the Vedda.

The implications of this research are vast, offering novel perspectives on the demographic history of not only Sri Lanka but also the broader South Asian region. This study underscores the complex mosaic of human migration and genetic diversity in South Asia, revealing how the Vedda have preserved their genetic identity over millennia despite massive cultural and linguistic changes around them.

These valuable insights will contribute to a better understanding of the genetic diversity in South Asia and foster a deeper appreciation for the unique cultural and genetic heritage of the Vedda people, said Dr. Vinay Nandicoori, Director, Centre for Cellular and Molecular Biology, Hyderabad.

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