TRACING THE HUMAN MATERNAL LINEAGES IN THE HIMALAYAS

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In the present study, we investigated the maternal sources of three Nepalese populations, namely Kathmandu (77), Newar (66) and Tamang (45), and a general collection from Tibet (156) by sequencing hypervariable regions I and II of mitochondrial DNA. In addition, we performed RFLP analyses of diagnostic SNPs within the coding region to assign the haplogroup for each sample. Our results show that a majority of the samples belong to macrohaplogroup M, with frequencies ranging from 76.9% in Tibet to 63.5% in Newar. Haplogroup M62 (3.2%) is found exclusively among Tibetans, supporting the indigenous origin of the marker on the highland. Macrohaplogroup N, on the other hand, is largely represented by sub-haplogroup U in the Nepalese populations (13-22.2%), while the same mutation is present in limited proportion in the Tibetan collection (1.3%), suggesting that modern humans carrying this subcontinent marker were unsuccessful in crossing the Himalayan massif into the Tibetan plateau.