MALE GENETIC CONSTITUTION OF AFRO-DERIVED BRAZILIAN POPULATIONS ESTIMATED BY Y-CHROMOSOME`S STRS

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Quilombo remnants are rural communities which were founded mainly by afro-derived individuals, especially fugitive slaves, at least 150 years ago. Genetic constitution of Afro-derived Brazilian populations is barely known, but previous study with *Mocambo*, *Rio das Rãs*, *Kalunga* and *Riacho de Sacutiaba*, afro-derived communities, accessed with Y SNPs, showed a higher frequency of Y European contribution that one would expect. Therefore, we evaluate if a genetic kit design for forensic analysis could be useful for population genetics studies in the process of investigating population evolution. In order to answer this question, we investigated twelve Y-chromosome STRs (PowerPlex® Y kit) in four Brazilian *quilombos* remnants: *Mocambo*, *Rio das Rãs*, *Kalunga* and *Riacho de Sacutiaba*. A total of 118 Y-chromosome analyzed, 85 different haplotypes were identified and only one was shared between two or more communities. Admixture analysis indicated European and Amerindian contribution, besides African, in the constitution of those four populations. *Kalunga* presented paternal contribution from all three parental populations - European (60%), African (27%) and Amerindian (13%). *Mocambo* showed the highest European contribution rate (88%). *Rio das Rãs* presented European and African parental populations contribution (62 and 38%, respectively). *Riacho de Sacutiaba* was the only one that did not show any European contribution to its paternal lineage history. European and Amerindian contribution can be explained, respectively, by directional mating between European males and African female slaves before the foundation of those communities and gene flow between those social excluded groups during Brazilian colonial period. Therefore, our results show clearly that PowerPlex® Y kit can be useful to access population evolution.

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