Isolation of DNA from saliva of betel quid chewers using Treated Cards
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Journal of Forensic Science (in press). Betel quid (BQ) chewing, a common tradition in tropical areas, often poses a problem during collection and DNA analysis of buccal samples from many indigenous communities for population genetic studies and in forensic analysis of chewed BQ residues. This study evaluated the use of FTA™ card, a chemically treated filter paper, in collecting buccal samples from long-term BQ users and subsequent PCR-based analysis using nine STR markers. A low overall success rate of amplification was observed in the samples extracted using a standard organic extraction procedure (7%) as compared to those prepared using the FTA™ card (89%). The presence of inhibitors in liquid DNA samples was verified when control DNA failed to amplify in the presence of an equal volume of liquid BQ samples. The use of FTA™ card is more practical during field sampling than handling tubes containing buccal swabs.

KEYWORDS
forensic science, DNA isolation, betel quid, short tandem repeats, polymerase chain reaction, FTA™ card