

## Brazilian Oral Research

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### Abstract







[ANZAI-KANTO, Evelyn](#) et al. DNA extraction from human saliva deposited on skin and its use in forensic identification procedures. *Braz. oral res.* [online]. 2005, vol.19, n.3, pp. 216-222. ISSN 1806-8324. doi: 10.1590/S1806-83242005000300011.

Saliva is usually deposited in bite marks found in many homicides, assault and other criminal cases. In the present study, saliva obtained from volunteers was deposited on skin and recovered for DNA extraction and typing in order to evaluate its usefulness for practical case investigation and discuss the contribution of forensic dentistry to saliva DNA typing. Twenty saliva samples were collected from different donors and used as suspects' samples. Five of these samples were randomly selected and deposited (250 禡) on arm skin. Saliva was collected from skin using the double swab technique. DNA from saliva and skin-deposited saliva samples was extracted by the phenol-chloroform method. DNA samples were amplified by PCR for DNA typing using a set of 15 STRs. The recovery of DNA from saliva deposited in the skin was 14 to 10 times lower than DNA quantity from saliva samples. DNA typing was demonstrated in 4 of 5 deposited saliva samples, the likelihood ratios estimated for these samples based on data of the Brazilian population were 1:11, 1:500, 1:159.140 and 1:153.700.123. Our results indicate that standardized procedures used for DNA collection and extraction from skin-deposited saliva can be used as a method to recover salivary DNA in criminal cases. However, it is important to observe that DNA recovery in forensic samples can be difficult. This study suggests that the analysis of saliva deposited on skin be incorporated into a criminal investigation since it may have great discriminatory power.

Keywords : DNA; Forensic dentistry; Saliva.

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