ABSTRACT

Background: Forensic case often encountered bitemark evidence that was found on the victim’s or perpetrator’s body. Bitemark can be compared with the tooth model of suspected person physically. However, this technique may cause subjective interpretations. Therefore, an alternative technique to identify the bitemark case was used. The biological evidence from bitemark may be taken by irrigating the bitemark to collect the saliva and buccal epithelium deposited during biting so that the DNA from the suspected person can be identified. In the fact DNA material that has been found was very limited and might be degraded, less both in quantity and quality. Due to that, an effective method to extract the DNA material is needed. 

Purpose: Proving the success of DNA extraction with organic method on bitemark samples. 

Method: Blood and bitemark samples were taken from 5 persons, each sample was extracted with organic method. Then, the sample quantities will be measured with UV-Spectrophotometer. DNA samples were amplified with PCR which vWA and TH01 loci were as the target. Visualizing band appearances were using 6% polyacrylamide gel electrophoresis.

Result: Electrophoresis visualisations show band appearances of vWA and TH01 loci from blood and bitemark samples which mean the organic method can be used for bitemark. 

Conclusion: It was proven that organic extraction can be used to extract DNA from bitemark.

Keywords: bitemark, organic, vWA, and TH01 loci