ABSTRACT

Background: Accurate photographic documentation of a crime scene is a crucial component of any venture into evidence collection, especially when it applies to recording bitemarks inflicted on humans during crimes of violence. A Standard Technique for bitemark photography includes proper orientation shots, close-up (macro) photography, correct angulation of the lens of the camera to the plane of injury, and inclusion of a scale with identifiers for each case. Working distance in macro photography of bitemark is a important thing to get an actual size of bitemark. Purpose: The aim of this study is to examine bitemark photography using different working distance and different type of flash. Method: A cheddar cheese (35 grams of block) were bitten by volunteers, then the incisal of 11 teeth measured by caliper. After these measurements, a photograph were taken with each ring flash and dedicated flash at working distance of 30 cm, 60 cm, and 90 cm, then the photograph measured by Adobe® Photoshop. Difference of measurement between photograph at working distance was analysed using repeated measures ANOVA. Result: The statistical analysis shows significance number for ring flash is 0.606 and for dedicated flash is 0.538. It means no significant difference between working distance of 30 cm, 60 cm, and 90 cm. Bitemark photography is better by using ring flash than dedicated flash with shadowless effect. Conclusion: The differences in working distance does not give much of a difference on bitemark photography. Lighting of bitemark photography is better using ring flash.

Keywords: bitemark photography, macrophotography, working distance, ring flash.