

Comparison and analysis of bite marks on the cheese and bananas

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ABSTRACT

It is very important to link the offender of the crime with the evidence left on the crime scene for the successful prosecution of the case especially when there are no witnesses of the crime. Criminals after committing the offense like theft do not hesitate to plunder with the eatables at the crime scene. Frequently they will eat anything which is good and readily available. Bananas and cheese are commonly present in the homes and they eat these and frequently leave behind parts of it on which are engraved their teeth marks. These bite marks can be useful evidence for identifying the offenders.

Keeping in mind this hypothesis, an experimental study has been done on these two food items with the help of consenting volunteers; where these volunteers left bite marks on cheese and bananas. There were 50 volunteers who left bite marks on cheese and 143 volunteers left bite marks on bananas. These bite marks were photographed and life-size photographs were printed. Volunteers' dental casts were made with dental stone and then transparencies were printed using hand drawn photocopying and scanning methods. Then these transparencies were matched with life-sized photographs by overlaying technique.

In banana, there was an accuracy of 82.33% whereas in Paneer (A variety of cheese) accuracy was just 28.5% where volunteers could be linked to their bite marks.

This study shows that different food materials have different rates of accuracy for linking the bite marks to the volunteers

This study gives us a data which can be applied to the crime scenes where offenders have left bite marks. Harvesting and comparing the bite marks with the casts of the suspects can help to include or exclude the suspects in the investigation and successful prosecution of the cases.