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**MACROSCOPIC CHANGES IN INCINERATED
TEETH**

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The authors declare that they have no conflict of interest.

Subheading: *Changes in the color and structure in incinerated teeth at different intervals of heat*
Background: *Teeth are amongst the most resistant elements of the human skeleton and are thus often utilized in routine forensic investigation involving the identification of unknown remains. Teeth exposed to thermal stress have the potential to not only aid in identification, but also in understanding the circumstances surrounding the fire. This study aimed to relate structural and color changes that occur post heating to aid in proper handling of samples in a forensic scenario and to inform about incineration temperature based on tooth condition. Material and methods: A total of 70 teeth, extracted as a part of routine clinical treatment, were exposed to different temperature intervals, ranging from 100°C to 1200°C for 60 minutes using a laboratory oven. Unheated teeth were used as controls for the study. After incineration the teeth were photographed and radiographed to visually assess morphological changes. Results: Structural and color changes, and radiographic abnormalities were associated to the temperature interval at which the teeth were cremated. Conclusion: It was possible to inform about incineration temperature based on tooth condition when the color changes, photographic and radiographic images were utilized collectively.*

KEYWORDS: Forensic Odontology, Identification, Incinerated tooth

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