



F7 Bite Mark Research – Antemortem and Postmortem Bite Marks – Part 2

Robert B.J. Dorion, DDS, 1 Place Ville-Marie, Suite 11238, Montreal, Quebec H3B 3Y1, Canada; Richard Beehler, DMD*, 470 Oliver Street, Victoria, BC V8S 3W4, Canada; Thomas Gromling, DMD*, 100 Highlander Road, Stephens City, VA 22655; Sylvain Laforge, DMD*, 5773 Bannantyne, Verdun, QC H4H 1H2, Canada; Elisa Meza, DMD*, 416 West San Ysidro Boulevard, Apartment #675, San Diego, CA 92173; and Marie-Josée Perron, DMD, 530 Des Songes, Laval, QC H7A 3Y4, Canada*

Upon completion of this presentation, participants will be able to assess the timing of bite marks and the effects of different variables and equipment used.

This presentation will impact the forensic community and/or humanity by underlining the use of UV and ALI photography and other variables to the overall picture of bite mark interpretation.

The learning objective of this oral presentation is to understand the interrelationship of some of the complex principles involved in bite mark analysis.

McGill University's Faculty of Dentistry, the Laboratoire de sciences judiciaires et de médecine légale, Ministry of Public Security for the province of Quebec, and the Quebec Provincial Police's Identity Section (forensic photography) collaborated for a second year on the study of photographic techniques, materials used for impressions and excision of bite marks, external and intrinsic factors as well as cellular changes affecting bite marks.

Human bite marks were inflicted both in vivo and postmortem by means of mounted vitalium dental casts on a Vice-Grip. Part 1 reported on the effects of bite marks inflicted 45 minutes before death to two and a half hours after death on unshaved specimens, while the current paper - Part 2 - reports the effects on shaved specimens with and without clothing from 45 minutes before death to 45 minutes after death.

The project included the use of videography, digitized photography (color, Ultraviolet, and Alternate Light Imaging), impressions of the bite mark, excision techniques employing different materials (Dorion - type 5), transillumination, tissue preservation, and fixation.

Various other factors including those attributed to the perpetrator, the recipient, the recording of the bite mark, extrinsic factors, lividity, and tissue preservation issues are conveyed.

After attending this presentation, attendees will understand the interrelationship between the variables and some of the more complex principles involved in bite mark analysis.

Reference:

- ¹ Dorion RBJ ed., *Bite mark Evidence*, Marcel Dekker, New York, 2005.

Bite Mark, Bite mark Research, Timing of Bite Marks