BRIEF COMMUNICATION

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Artefact in Forensic Medicine: Pseudo-Rodent Activity

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ABSTRACT: Postmortem rodent activity is a potential source of confounding marks for forensic pathologists when unmasking criminal activity. It might also be that something innocent could be masquerading an "end result" of rodent disturbance. A chronic skin lesion which proved to be a "pseudo-rodent" artefact is briefly communicated and supplements an earlier published article on artefact in forensic medicine.

KEYWORDS: pathology and biology, dermatopathology, forensic medicine, postmortem artefact, pseudo-rodent activity, dermatitis artefacta

This brief communication supplements a published article on postmortem rodent activity [*1*] and demonstrates that something innocent may masquerade an "end result" of rodent disturbance. A chronic skin lesion which proved to be a "pseudo-rodent" artefact is photo-reported and may avoid an unjustified blame on rodents! Similarly, a pre-existing injury may be adversely modified by human hands and also resemble rodent activity.

Case History

A dead body of an elderly woman found in her home aroused suspicion because of blood on her face and hands and skin tissue debris adherent to the base of a table lamp which had extensive blood smear. She had an abraded red skin lesion on the soft part of the nose and the crime scene investigators were uncertain whether it could be an injury due to criminal wounding or an accidental impact upon a collapse from natural causes.

At autopsy, the skin lesion showed a resemblance to rodent activity (Fig. 1). It was evident from the scab which had formed that the skin condition was not acute. The skin surface was not consistent with a recent abrasion from an impact as suspected. It was noted that her fingernails were pointed and long with congealed blood and skin debris underneath the ends. There were various old bruises consistent with recurrent falls but no significant marks of recent violence. The cause of death was attributed to heart disease.

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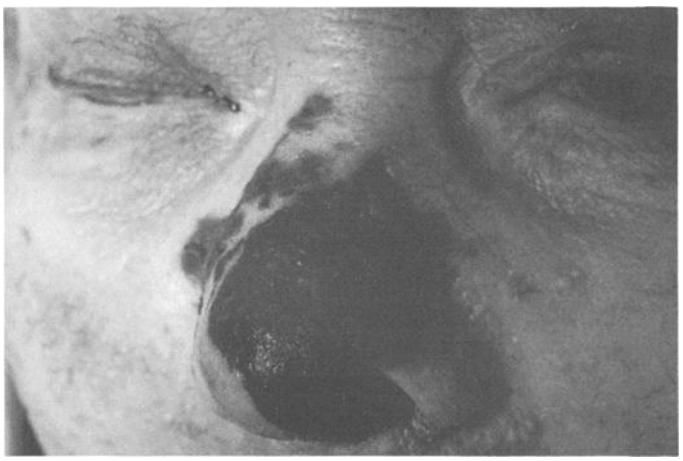

FIG. 1—*An aggravated chronic skin lesions on the nose that proved to be "pseudo-rodent" artefact. A skin biopsy confirmed it to be an irritated dermatitus artefacta.*

Discussion

The skin lesion would have to be an adverse modification of a pre-existing injury or disease, since postmortem rodent activity alone could not account for the blood distribution and skin tissue which was found at the scene. At this juncture in the mortuary it was possible to establish from the bereaved relatives that the deceased had a chronic skin disease of the nose and was in the habit of picking at it with her hands, thus self-aggravating it.

A postmortem skin biopsy of the "pseudo-rodent" artefact showed irritated dermatitis artefacta with no evidence of malignancy [Kirkham, N., personal communication]. There was severe epidermal excoriation with secondary acute inflammation of the dermis.

Other well known skin conditions of forensic significance are reported elsewhere, for example dermatitis artefacta (self-inflicted by sucking) [*2*], erythema infectiosum (slapped-face rash or fifth disease) [*3*], erythema multiforme [*4*], giant mongolian spot [*5*], senile purpura (ecchymoses) [*6*], phytophotodermatitis [*7*] or septicemic rash [*2*] which may be mistaken as bruises. Others may be misinterpreted as non-accidental injury and include psoriasis resembling abrasions, toxic epidermal necrolysis simulating scalding, varicella scars mimicking cigarette burns [*2*].

A general awareness of artefactual postmortem animal activity, which may be a potential source of confounding marks when

unmasking criminal activity [*1*], should also include skin lesions that are adversely modified by self-aggravation as in this case.

References

[*1*] Patel, F., "Artefact in Forensic Medicine: Postmortem Rodent Activity," *Journal of Forensic Sciences,* Vol. 39, January 1994, pp. 257–260.

[*2*] Pearn, J., "Physical Abuse of Children," *Paediatric Forensic Medicine and Pathology,* J. K. Mason, Ed., Chapman and Hall Medical, London, 1989, pp. 204–220.

[*3*] Feder, H. M., "Images in Clinical Medicine (Fifth Disease)," *New England Journal of Medicine,* Vol. 331, October 1994, p. 1062.

[*4*] Adler, R. A., and Kane-Nussen, B. K., "Erythema Multiforme: Confusion with Child Battering Syndrome," *Pediatrics,* Vol. 72, 1983, p. 718.

[*5*] Patel, F., "Minerva (mongolian spot)," *British Medical Journal,* Vol. 307, October 1993, p. 948.

[*6*] Giles, T. E. and Williams, A. R., "The Postmortem Incidence of Senile Ecchymoses," *American Journal of Forensic Medicine and Pathology,* Vol. 15, 1994, pp. 208–210.

[*7*] Coffman, K., Boyce, T., and Hansen, R. C., "Phytophotodermatitis Simulating Child Abuse," *American Journal of Disease of Childhood,* Vol. 139, 1985, p. 239.

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