

TECHNICAL NOTE

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An Improved Method of Gunshot Wound Examination

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ABSTRACT: Examination of gunshot wounds can frequently be obscured by dried blood and other extraneous artifacts. This note describes a method that involves irrigation of the wound with commercial hydrogen peroxide (3% by volume), which enhances the wound without altering the abrasion ring or powder residues.

KEYWORDS: pathology and biology, wound ballistics

The examination of gunshot wounds is frequently complicated by dried blood and other extraneous artifacts. Such artifacts can obscure the abrasion ring or powder residues, if any are present. Determination of the range of fire can thus be problematic. This note describes an improved method for gunshot wound examinations.

Commercially available hydrogen peroxide (3% by volume) is purchased from local drug or grocery stores. The peroxide is gently irrigated onto the gunshot wound under examination. After 2 or 3 min the wound is gently flooded with tap water to remove the foam and blood.

With the peroxide irrigation, the dried blood is effectively removed, leaving the abrasion ring and powder residues (if any) undisturbed. Such a dramatic effect can be seen in Fig. 1. Energy dispersive X-ray (EDX) analysis of the hydrogen peroxide reveals no metallic or primer residues. Thus any further examination of the gunshot wound by EDX is unaffected should such a technique prove needed. The method is quite simple but has not appeared in the literature or in standard texts to date.

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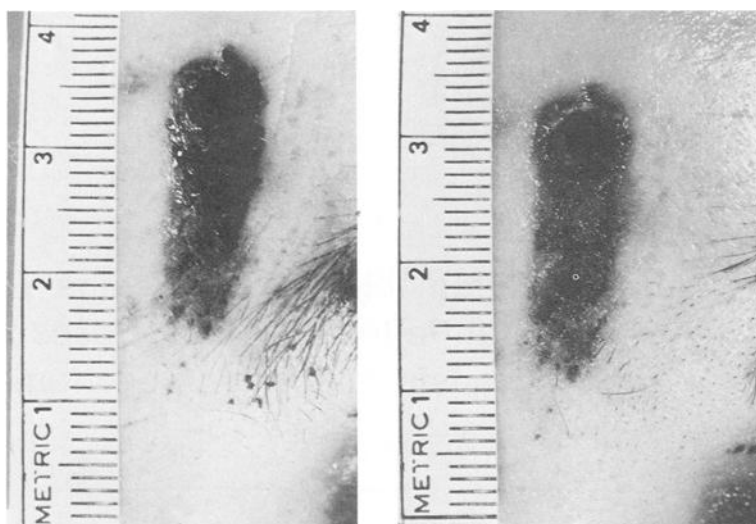


FIG. 1—Gunshot wound (left) before peroxide treatment and (right) after treatment. Note abrasion ring and powder.

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