

Forensic Dermatology's Role in Unraveling Cases of Abuse and Neglect

Nwokolo Slikkerveer*

Department of Forensic Medicine, Chiang Mai University, Chiang Mai 50200, Thailand

Introduction

Forensic dermatology, a sub-specialty of dermatology, plays a crucial role in the detection, documentation and analysis of skin-related evidence in criminal cases. When it comes to abuse and neglect, particularly in vulnerable populations such as children, the elderly and individuals with disabilities, forensic dermatology becomes a vital tool in identifying and confirming signs of mistreatment. Skin is not only the largest organ of the body but also a primary interface with the external environment, making it both a witness and a record keeper of physical trauma. This explores the role of forensic dermatology in unraveling cases of abuse and neglect. It delves into the methods forensic dermatologists use to analyze dermatological evidence, how such evidence is interpreted in the context of abuse and neglect and the broader implications of these findings in legal and medical settings. Understanding the role of forensic dermatology in these contexts can provide clarity on how it contributes to the safety and protection of vulnerable individuals [1].

Forensic dermatology is the application of dermatologic expertise to legal cases. It involves the examination of skin conditions, injuries and lesions that may have resulted from criminal activities, including physical abuse, sexual assault and neglect. Forensic dermatologists are experts trained to detect and interpret changes in the skin, which can serve as key evidence in legal proceedings. The skin's ability to react to external forces through bruising, burns, scalds, lacerations and other injuries is one of the reasons dermatology is essential in abuse cases. The skin, through these alterations, can reveal whether injuries were accidental, self-inflicted, or caused by someone else. Dermatologists play a pivotal role in identifying the timing, nature and mechanism of injuries, which is especially critical when considering the physical and psychological well-being of victims [2].

Description

Forensic dermatologists are often called upon to assess injuries in cases where physical abuse is suspected. These injuries include bruises, burns, lacerations, abrasions and bites, each of which has unique characteristics. Understanding the nature of these injuries is essential for distinguishing between accidental injuries and those inflicted through violent means. Bruising is one of the most common forms of abuse-related injury. The age, location and pattern of bruises can provide crucial information about the nature of the abuse. For instance, bruises on the face, neck, or genitals may be indicative of abusive behaviors, while bruises on areas like the knees or elbows might be consistent with accidental falls or play. Dermatologists can assess the age of bruises by examining the color and texture of the bruises, which change as they heal. Fresh bruises are often red or purple, while older bruises may be yellow or green. Burns are another type of injury frequently associated with abuse. Forensic dermatologists are trained to distinguish between accidental

burns and those that are deliberately inflicted. The pattern of burns can help determine if the injury was self-inflicted or caused by a perpetrator. For example, cigarette burns, which often leave circular marks on the skin, may be a sign of physical abuse, as opposed to a burn caused by a spill or open flame, which would typically have irregular, splashed patterns [3].

In cases of neglect, skin changes can serve as key indicators of maltreatment. Chronic undernourishment, poor hygiene and lack of proper medical care can lead to a variety of dermatologic conditions. For instance, untreated infections, skin rashes and scabies infestations are common signs of neglect. Poor hygiene and inadequate wound care are often the result of neglect. Dermatologists may identify skin conditions that would typically not persist in individuals who receive proper care. These could include chronic ulcers, untreated infections, or severe diaper rashes in young children, all of which can be signs of a caregiver's neglect. Additionally, neglect can also be identified through the prolonged exposure of skin to environmental conditions such as extreme temperatures, leading to frostbite, sunburn, or dehydration. Furthermore, dermatologists may be involved in evaluating bedsores (pressure ulcers), which occur when a person is left in a single position for an extended period, leading to skin breakdown. The presence of bedsores in individuals who are immobile or unable to care for themselves is often indicative of neglect, particularly in elderly individuals or those with disabilities. Dermatology experts use a range of techniques to assess skin injuries or conditions that could be related to abuse or neglect. Histopathological examination (study of skin tissue under a microscope) may help determine the age or type of injury, while dermatoscopic techniques allow for more detailed examination of lesions or suspicious marks. Photographic documentation plays a vital role in forensic dermatology. Dermatologists take photographs of injuries or conditions at various stages of healing to provide a clear record. These photographs can serve as valuable evidence in court and can also help track the progression of injuries over time [4].

Forensic dermatologists must adhere to strict ethical guidelines when handling cases of abuse and neglect. They have the responsibility to maintain objectivity and not allow their personal beliefs or biases to influence their findings. The dermatologic evidence they provide can play a significant role in the criminal justice system, so accurate documentation and testimony are essential. Forensic dermatologists are also required to maintain confidentiality and protect the privacy of patients, especially in sensitive cases involving children or vulnerable adults. In legal proceedings, their role is to offer an unbiased, scientific perspective based on their expertise, without speculating on the intent of the perpetrator [5].

Conclusion

Forensic dermatology has emerged as a vital field in the fight against abuse and neglect. By analyzing skin-related evidence, forensic dermatologists contribute to the identification, documentation and understanding of injuries or conditions that may indicate physical, emotional, or sexual harm. Whether it is recognizing the subtle signs of abuse or identifying chronic neglect, forensic dermatology serves as an essential resource for investigators, legal professionals and healthcare providers. As the importance of forensic dermatology continues to grow, it remains an indispensable tool in the protection of vulnerable individuals, particularly in cases of abuse and neglect. The field bridges the gap between medicine and law, ensuring that victims of mistreatment receive the attention, protection and justice they deserve. The integration of forensic dermatology into legal and medical investigations strengthens the efforts to uncover the truth, advocate for the safety of

*Address for Correspondence: Nwokolo Slikkerveer, Department of Forensic Medicine, Chiang Mai University, Chiang Mai 50200, Thailand; E-mail: nwlkkerveer.kolo@rv.th

Copyright: © 2024 Slikkerveer N. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Received: 02 November, 2024, Manuscript No. JFM-24-156603; Editor assigned: 04 November, 2024, PreQC No. P-156603; Reviewed: 18 November, 2024, QC No Q-156603; Revised: 23 November, 2024, Manuscript No. R-156603; Published: 30 November, 2024, DOI: 10.37421/2472-1026.2024.9.387

individuals and hold perpetrators accountable for their actions.

Acknowledgement

We thank the anonymous reviewers for their constructive criticisms of the manuscript.

Conflict of Interest

The author declares there is no conflict of interest associated with this manuscript.

References

1. Ovaska, Hanna, David M. Wood, Ivan House and Paul I. Dargan, et al. "Severe iatrogenic bismuth poisoning with bismuth iodoform paraffin paste treated with DMPS chelation." *Clin Toxicol* 46 (2008): 855-857.
2. Weller, Malcolm PI. "Neuropsychiatric symptoms following bismuth intoxication." *Postgrad Med J* 64 (1988): 308-310.
3. Robertson, James F. "Mental illness or metal illness? Bismuth subgallate." *Med J Aust* 1 (1974): 887-888.
4. Phillips, Rosemary H., Mark W. Whitehead, Sandra Lacey and Miranda Champion, et al. "Solubility, absorption and anti-*Helicobacter pylori* activity of bismuth subnitrate and colloidal bismuth subcitrate: *In vitro* data do not predict *in vivo* efficacy." *Helicobacter* 5 (2000): 176-182.
5. Slikkerveer, Anja and Frederik A. de Wolff. "Toxicity of bismuth and its compounds." *Toxicology of Metals Volume I* (2023): 439-454.

How to cite this article: Slikkerveer, Nwokolo. "Forensic Dermatology's Role in Unraveling Cases of Abuse and Neglect." *J Forensic Med* 9 (2024): 387.