

The Sensory Function of the Skin in Scientific Qur'anic Exegesis of al-Nisā' [4]:56

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Abstract: Q. al-Nisā' [4]:56 describes the repeated replacement of burned skin so that punishment continues to be experienced. This article examines how selected exegetes interpret the relationship between skin replacement and bodily suffering and assesses the extent to which medical knowledge can illuminate this relationship without reducing the verse to a scientific proposition. Using qualitative library research and interpretive document analysis, the study analyzes the verse and selected works by Ibn Kathir, Tantawi Jawhari, Wahbah al-Zuhayli, and M. Quraish Shihab, together with peer-reviewed medical literature on skin anatomy, cutaneous nociception, pain processing, and full-thickness burn injury. The findings show that the selected exegetes understand skin replacement primarily within the theological framework of divine justice and the continuity of eschatological punishment, while modern interpreters also relate it to the sensory function of the skin. Medical evidence indicates that nociceptive free nerve endings in the skin detect potentially damaging stimuli and transmit signals to the central nervous system. Pain, however, is not located exclusively in the skin but arises from the interaction of peripheral nociception and central neural processing. Full-thickness burns may reduce sensation when cutaneous nerves are destroyed, but such injuries are not necessarily painless because adjacent or partially damaged tissue may remain responsive. These findings support a limited interpretive correspondence, rather than scientific proof, between the verse and medical knowledge. Within the limits of this case, tafsīr 'ilmī remains methodologically defensible when textual meaning and empirical explanation are placed in dialogue while remaining analytically distinct.

Keywords: *Cutaneous nociception; Scientific qur'anic exegesis; Skin sensation; Full-thickness burn injury; Q. al-Nisā' [4]:56*

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A. Introduction

The Qur'an occupies a central position in Muslim intellectual life as a source of religious guidance, ethical orientation, and reflection on human existence. Its references to the natural world have also encouraged Muslim scholars to examine how scriptural interpretation may engage with knowledge obtained through observation and reason. Such engagement does not require treating the Qur'an as a technical scientific textbook. Rather, references to human creation, the natural environment, and bodily experience can provide points of departure for reflection on the relationship between revelation and empirical knowledge.

One approach developed within this intellectual tradition is *tafsīr 'ilmī*, or scientific Qur'anic exegesis, which employs scientific knowledge to illuminate verses associated with natural or human phenomena. The approach remains methodologically contested. Its advocates regard contemporary science as a resource that may clarify certain dimensions of Qur'anic language, whereas its critics caution against subjecting scriptural meaning to scientific theories that are provisional and historically changeable.¹ Indonesian scholarship similarly demonstrates that scientific exegesis encompasses different epistemological positions, ranging from attempts to seek scientific confirmation of scripture to more dialogical models that maintain the distinct authority and methods of revelation and science.² Recent criticism of Indonesian scientific exegesis further emphasizes the need to distinguish constructive interdisciplinary engagement from attempts to impose contemporary theories on the Qur'anic text.³

This methodological issue is particularly relevant to Q. al-Nisā' [4]:56, which describes the punishment of those who reject God's signs: whenever their skins have been burned, they will be replaced with other skins so that they may continue to experience punishment. Within its immediate context, the verse presents an eschatological and theological warning concerning divine justice. Its central purpose is therefore not to provide a technical account of human anatomy. Nevertheless, the verse's reference to the replacement of burned skin and the continued experience of suffering has prompted some exegetes to consider the sensory function of the skin. Tantawi Jawhari and M. Quraish Shihab, for example, connect the wording of the verse with the role of cutaneous nerves in receiving harmful thermal stimuli.⁴ Their interpretations provide the textual foundation for examining how the verse has been read through the framework of scientific exegesis.

¹Rubini, "Tafsir 'Ilmi," *Al-Manar: Jurnal Komunikasi dan Pendidikan Islam* 5, no. 2 (2016), 89–91, <https://doi.org/10.36668/jal.v5i2.37>.

²Akhmad Supriadi, "Integrating Qur'an and Science: Epistemology of Tafsir Ilmi in Indonesia," *Refleksi: Jurnal Kajian Agama dan Filsafat* 16, no. 2 (2017): 149–186, <https://doi.org/10.15408/ref.v16i2.10191>.

³Firdarini, Vieka Tauhidah, and Hasani Ahmad Said, "Transformation of Scientific Interpretation in Indonesia: An Epistemological Criticism of the Scientific-Religious Paradigm in the Works of Purwanto and Mustofa," *Al Furqan: Jurnal Ilmu Al Quran dan Tafsir* 8, no. 2 (2025): 304–317, <https://doi.org/10.58518/alfurqan.v8i2.4238>.

⁴Tantawi Jawhari, *Al-Jawāhir fī Tafsīr al-Qur'ān al-Karīm*, vol. 3 (Beirut: Dar al-Fikr, n.d.), 50; M. Quraish Shihab, *Tafsir Al-Mishbah: Pesan, Kesan dan Keserasian Al-Qur'an*, vol. 2 (Jakarta: Lentera Hati, 2002), 476.

Medical literature establishes that the skin is densely innervated by sensory neurons that respond to mechanical, thermal, and potentially tissue-damaging stimuli.⁵ Noxious stimuli are detected primarily by nociceptors, which are specialized peripheral sensory neurons with free nerve endings distributed throughout the skin and other tissues. These neurons transmit signals through myelinated Aδ fibers and unmyelinated C fibers toward the spinal cord and higher neural centers.⁶ This process is more accurately described as nociception rather than pain itself. Contemporary pain science distinguishes nociception—the neural encoding of potentially harmful stimuli—from pain, which is a sensory and emotional experience involving peripheral signals, central processing, previous experience, and psychological context.⁷ Accordingly, the skin is not the “center of pain.” It is more accurately understood as an important site of cutaneous nociceptive transduction within a wider somatosensory system.

This distinction is also important when discussing burn injuries. Full-thickness burns can destroy the epidermis, dermis, and cutaneous nerve endings, sometimes producing reduced sensation or an insensate area at the center of the injury. The clinical presentation, however, depends on burn depth, location, surrounding tissue, and the extent of neural damage. Severe burns therefore cannot be reduced to the general statement that burned skin no longer produces pain.⁸ Medical findings concerning full-thickness burns may help explain why contemporary readers associate the replacement of skin in Q. al-Nisā’ [4]:56 with the continuation of nociceptive capacity, but they do not transform the verse into a clinical or anatomical proposition.

Previous studies have directly examined the relationship between Q. al-Nisā’ [4]:56 and the sensory function of the skin. Wahab interpreted the verse through the concept of the skin as a pain receptor and related the replacement of burned skin to the restoration of sensory function.⁹ Hajar, Hidayah, and Wardah subsequently discussed skin anatomy, sensory nerves, and the loss of sensation following extensive neural damage.¹⁰ Ihsan, Elijonahdi, and Nini examined the broader Qur’anic representation of cutaneous sensitivity, including pain in Q. al-Nisā’ [4]:56 and other forms of touch described in

⁵Ellen A. Lumpkin and Michael J. Caterina, “Mechanisms of Sensory Transduction in the Skin,” *Nature* 445, no. 7130 (2007): 858–865, <https://doi.org/10.1038/nature05662>.

⁶Adrienne E. Dubin and Ardem Patapoutian, “Nociceptors: The Sensors of the Pain Pathway,” *Journal of Clinical Investigation* 120, no. 11 (2010): 3760–3772, <https://doi.org/10.1172/JCI42843>.

⁷Srinivasa N. Raja et al., “The Revised International Association for the Study of Pain Definition of Pain: Concepts, Challenges, and Compromises,” *Pain* 161, no. 9 (2020): 1976–1982, <https://doi.org/10.1097/j.pain.0000000000001939>.

⁸Marc G. Jeschke et al., “Burn Injury,” *Nature Reviews Disease Primers* 6 (2020): article 11, <https://doi.org/10.1038/s41572-020-0145-5>.

⁹M. Royyan Nafis Fathul Wahab, “Skin as a Pain Receptor: Study the Interpretation of Surat An-Nisa’ Verse 56 with the Science Approach,” *Dirosatuna: Journal of Islamic Studies* 2, no. 2 (2019): 10–14, <https://doi.org/10.31538/dirosatuna.v2i2.459>.

¹⁰Aprilita Hajar, Ana Miftahul Hidayah, and Lailatul Wardah, “Relevansi antara Ilmu Kedokteran dengan Struktur Kulit Manusia dalam Al-Qur’an,” *Substantia: Jurnal Ilmu-Ilmu Ushuluddin* 25, no. 1 (2023): 145–147, <https://doi.org/10.22373/substantia.v25i1.17596>.

Qur'anic passages.¹¹ These studies establish that the general relationship between the verse and cutaneous sensation is not new.

The remaining analytical problem concerns how this relationship should be formulated. Previous studies have generally approached the verse through correspondence or scientific confirmation, but they have not systematically distinguished peripheral nociception from pain as a sensory and emotional experience. Nor have they made the epistemological status of the medical explanation central to their analyses. As a result, cutaneous nociceptive signaling can be conflated with the complete experience of pain, while contemporary medical concepts can appear to constitute the verse's final or scientifically verified meaning. The present study addresses this conceptual and epistemological problem rather than claiming to discover the relationship between skin replacement and bodily sensation for the first time.

Against this background, the study reexamines Q. al-Nisā' [4]:56 by bringing selected classical and modern exegetical works into dialogue with medical literature on cutaneous nociception, pain processing, and full-thickness burn injury. It addresses two questions: how do the selected exegetes interpret the relationship between skin replacement and the continued experience of punishment, and to what extent can contemporary medical knowledge illuminate that interpretation without reducing the verse to a scientific proposition? The study contributes a more precisely delimited interdisciplinary reading by distinguishing textual meaning, peripheral nociceptive signaling, the conscious experience of pain, and the epistemological limits of scientific exegesis.

B. Method

This study employed qualitative library research using interpretive document analysis. Document analysis was selected because the data consisted of Qur'anic text, exegetical works, and medical publications rather than observations of human participants. In this approach, documents are treated as research materials that are selected, examined, compared, and interpreted according to the study's questions.¹² The study was designed as a focused critical literature review rather than a systematic review intended to identify every publication on the subject. This distinction is important because the analysis sought to compare interpretive propositions with relevant medical concepts, not to estimate a clinical effect or synthesize quantitative findings.¹³

The primary textual corpus consisted of Q. al-Nisā' [4]:56 and selected interpretations by Ibn Kathir, Tantawi Jawhari, Wahbah al-Zuhayli, and M. Quraish Shihab. These works were purposively selected because they represent classical and

¹¹Sartika Fortuna Ihsan, Elijonahdi, and Nini, "The Sensitivity of the Human Sense of Touch (Skin) in the Qur'an," *Studi Multidisipliner: Jurnal Kajian Keislaman* 11, no. 2 (2024): 249–255, <https://doi.org/10.24952/multidisipliner.v11i2.13752>.

¹²Glenn A. Bowen, "Document Analysis as a Qualitative Research Method," *Qualitative Research Journal* 9, no. 2 (2009): 27–40, <https://doi.org/10.3316/QRJ0902027>.

¹³Hannah Snyder, "Literature Review as a Research Methodology: An Overview and Guidelines," *Journal of Business Research* 104 (2019): 333–339, <https://doi.org/10.1016/j.jbusres.2019.07.039>.

modern exegetical perspectives and because they discuss the replacement of skin, the continuity of punishment, or the sensory implications associated with the verse. The secondary corpus comprised peer-reviewed literature concerning skin anatomy, cutaneous sensory receptors, nociception, pain, and full-thickness burn injuries. Previous studies addressing the relationship between the Qur'an and human skin were also examined to establish the article's analytical position.

Relevant literature was identified through searches of Google Scholar, PubMed, official journal platforms, publisher websites, and the reference lists of directly relevant publications. The search was updated through August 2026. Search terms were used individually and in combination, including "Q. al-Nisā' 4:56 and skin," "skin as a pain receptor in the Qur'an," "cutaneous nociception," "nociceptors and pain," "full-thickness burn sensation," "scientific Qur'anic exegesis," and "*tafsīr 'ilmī*." Indonesian equivalents of these terms were also used. DOI and bibliographic metadata were checked against the relevant journal or publisher records. Because the study was designed as a focused critical review, the search was iterative and purposive rather than exhaustive; it was not intended to satisfy the procedural requirements of a systematic review.

Sources were retained when they met at least one of four criteria: they directly interpreted Q. al-Nisā' [4]:56; examined Qur'anic representations of skin sensation; explained the anatomy or neurophysiology of cutaneous sensation, nociception, pain, or burn injury; or discussed the epistemological relationship between scientific knowledge and Qur'anic interpretation. For medical propositions, priority was given to peer-reviewed review articles, established medical definitions, and publications directly addressing cutaneous receptors or burn pathophysiology. Publications on skin diseases, fingerprint identification, cosmetic treatment, or computer-based diagnostic systems were excluded when they did not contribute directly to the research questions. Popular media sources were not used as principal evidence for theological or medical claims.

The analysis proceeded in four stages. First, the wording and immediate theological context of Q. al-Nisā' [4]:56 were examined, with particular attention to the relationship between the replacement of skin and the continued experience of punishment. Second, the selected exegetical works were compared to identify how each interpreter understood skin replacement, bodily sensation, and the continuity of punishment. Third, medical propositions within or derived from these interpretations were compared with peer-reviewed literature on skin innervation, nociception, pain processing, and burn depth. Fourth, the identified relationships were classified as interpretive correspondence, conceptual limitation, or epistemological tension.

The analysis distinguished theological interpretation from empirical explanation. Medical literature was therefore not used to determine the final meaning of the verse or to prove the truth of revelation. Conversely, the Qur'anic verse was not treated as a substitute for clinical or anatomical evidence. This boundary follows the more cautious form of *tafsīr 'ilmī*, which regards scientific knowledge as a possible interpretive resource while recognizing the provisional character of scientific theories and the distinct purposes

of scripture and empirical inquiry.¹⁴ It also responds to the different epistemological models through which Indonesian scholars have related the Qur'an to science.¹⁵

To improve analytical credibility, medical claims were cross-checked against peer-reviewed review articles and established medical definitions. Claims concerning earlier interpretations were attributed to the relevant exegetical works rather than presented as independent medical findings. Because the study used publicly available textual materials and did not involve human participants, personal data, interviews, or clinical intervention, institutional ethical approval and informed consent were not applicable.

C. Results and Discussion

1. The Skin as a Cutaneous Sensory Organ

The skin consists principally of the epidermis and dermis, while the hypodermis lies beneath the skin proper. The epidermis is an avascular stratified epithelium that forms a protective barrier against the external environment. The dermis is composed largely of connective tissue and contains blood vessels, glands, hair follicles, and neural structures. Beneath these layers, the hypodermis consists primarily of loose connective and adipose tissue that provides cushioning, energy storage, and mobility between the skin and underlying structures.¹⁶

The skin performs protective, regulatory, and sensory functions. Its sensory function depends on different classes of cutaneous receptors rather than on a single receptor responsible for all external stimuli. Merkel cell–neurite complexes and Meissner corpuscles contribute to discriminative touch, while Pacinian corpuscles are particularly responsive to rapid deformation and high-frequency vibration. Ruffini endings are generally associated with skin stretch and sustained mechanical deformation. Noxious mechanical, thermal, and chemical stimuli are detected primarily by nociceptive free nerve endings.¹⁷ Accordingly, Pacinian corpuscles are not pain receptors, and Ruffini endings are not simply heat receptors.

This diversity shows that the skin is not an independent “center” of sensation. Instead, it functions as a peripheral sensory interface in which different receptors convert external stimuli into neural signals. These signals are transmitted through peripheral nerves to the spinal cord and brain, where they are processed as touch, temperature, pressure, itch, or pain.¹⁸ Consequently, the role of the skin in Q. al-Nisā' [4]:56 is better discussed in relation to cutaneous sensory transduction than described through the medically inaccurate expression “the skin is the center of pain.”

¹⁴Rubini, “Tafsir ‘Ilmi.”

¹⁵Supriadi, “Integrating Qur'an and Science,” 149–186.

¹⁶Sonny J. R. Kalangi, “Histofisiologi Kulit,” *Jurnal Biomedik* 5, no. 3 (2013): 12–20, <https://doi.org/10.35790/jbm.5.3.2013.4344>.

¹⁷Cut Gina Inggriyani and Hidayaturrahmi, “Histofisiologi Reseptor Sensoris Kulit,” *Jurnal Sinaps* 5, no. 3 (2022): 10–17.

¹⁸Lumpkin and Caterina, “Mechanisms of Sensory Transduction,” 858–865.

2. Nociception, Pain, and Full-Thickness Burn Injury

Nociceptors are specialized peripheral sensory neurons whose free nerve endings detect potentially tissue-damaging stimuli. They can respond to mechanical force, extreme temperature, chemical irritants, or combinations of these stimuli.¹⁹ Their signals are transmitted primarily through thinly myelinated A δ fibers and unmyelinated C fibers. A δ -fiber activity is commonly associated with relatively rapid and more localized nociceptive signaling, whereas C-fiber activity is generally slower and more diffuse. These categories are not absolute descriptions of every painful experience, but they provide a basic neurophysiological distinction between major peripheral nociceptive pathways.

Nociception is nevertheless distinct from pain. The International Association for the Study of Pain defines pain as a sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage. The accompanying conceptual framework explicitly recognizes that pain and nociception are different phenomena and that pain cannot be inferred solely from activity in sensory neurons.²⁰ The skin detects and transmits noxious stimulation, but the conscious experience of pain involves processing within the spinal cord, brainstem, thalamus, cerebral cortex, and other neural networks, together with cognitive and emotional factors.

This distinction corrects the view that the skin alone produces or experiences pain. Cutaneous nociceptors initiate part of the signaling process, while pain emerges from the wider somatosensory system. Mechanoreceptors such as Pacinian and Meissner corpuscles are not nociceptors merely because they are located in the skin.²¹ Nociceptors are predominantly free nerve endings, and their activity represents neural detection of potentially harmful stimulation rather than the entirety of the pain experience.²²

The distinction is also relevant to burn injuries. Contemporary burn classification is based primarily on the depth of tissue damage, not merely on the percentage of the body surface affected. A full-thickness burn destroys the epidermis and dermis and may damage cutaneous nerve endings. The central area of such an injury can consequently display markedly reduced sensation or appear insensate. This clinical condition provides a plausible physiological basis for discussing the relationship between intact skin innervation and nociceptive signaling.²³

It would nevertheless be inaccurate to claim that every full-thickness burn is entirely painless. Burn injuries may include areas of different depth, and tissues surrounding a full-thickness injury can remain intensely painful because of inflammation, partial neural preservation, or sensitization of adjacent nociceptors. Severe burns can also produce persistent or chronic pain during healing and reinnervation.²⁴ A full-thickness burn may therefore reduce sensation at the center of maximal tissue destruction without

¹⁹Dubin and Patapoutian, "Nociceptors," 3760–3772.

²⁰Raja et al., "Revised International Association for the Study of Pain Definition," 1976–1982.

²¹Inggriyani and Hidayaturrehmi, "Histofisiologi Reseptor Sensoris Kulit," 10–17.

²²Dubin and Patapoutian, "Nociceptors," 3760–3772.

²³Jeschke et al., "Burn Injury."

²⁴Jeschke et al., "Burn Injury."

eliminating all pain associated with the injury. Reviews of burn pathophysiology similarly distinguish the central zone of irreversible tissue damage from surrounding zones of stasis and hyperemia.²⁵

Accordingly, the medical literature supports a limited proposition: destruction of cutaneous nerve endings can impair nociceptive signaling from the damaged area. It does not support the broader proposition that pain is located exclusively in the skin or that complete burning necessarily eliminates every form of pain.

3. Exegetical Readings of Q. al-Nisā' [4]:56

Q. al-Nisā' [4]:56 states as follows (authors' translation):

Indeed, those who reject Our signs, We shall expose them to the Fire. Whenever their skins are burned through, We shall replace them with other skins so that they may taste the punishment. Indeed, God is Almighty and Wise.

The verse occurs within a passage contrasting the consequences faced by those who reject God's signs with the reward promised to those who believe and act righteously. Its immediate concern is eschatological: it affirms the continuity of punishment and God's power to recreate the bodily conditions through which that punishment is experienced. The reference to skin is therefore embedded in a theological account of divine judgment rather than presented as a clinical description of the sensory system.

Ibn Kathir interprets the repeated replacement of the skin as an indication that the punishment will continue rather than cease after the body has been burned. His commentary transmits reports attributed to Ibn 'Umar and al-Hasan al-Basri concerning the repeated restoration of burned skin.²⁶ These reports differ in their numerical descriptions and belong to the transmitted history of interpretation. They are relevant to understanding how earlier commentators envisioned the continuity and severity of punishment, but they do not constitute empirical evidence about human skin.

Al-Zuhayli similarly places the verse within the theological themes of divine power, wisdom, and the continuity of retribution. The skin is replaced so that the experience of punishment does not end when the previous skin has been consumed.²⁷ This reading establishes a functional relationship between renewed skin and continued bodily sensation, but it does not describe nociceptors, neural fibers, or central pain processing.

Scientific interpretations become more explicit in modern exegetical works. Tantawi Jawhari connects the verse's reference to burned and renewed skin with the skin's sensory function.²⁸ M. Quraish Shihab also draws attention to the neural structures distributed throughout the skin and relates the wording of the verse to the skin's

²⁵Shehan Hettiaratchy and Peter Dziewulski, "Pathophysiology and Types of Burns," *BMJ* 328, no. 7453 (2004): 1427–1429, <https://doi.org/10.1136/bmj.328.7453.1427>.

²⁶Isma'il ibn 'Umar Ibn Kathir, *Tafsir Ibn Kathir (Abridged)*, ed. Safiur-Rahman al-Mubarakpuri, vol. 2 (Riyadh: Darussalam, 2000), under "The Punishment of Those Who Disbelieve in Allah's Books and Messengers," commentary on Q. al-Nisā' [4]:56.

²⁷Wahbah al-Zuhayli, *Tafsir al-Munir: Aqidah, Syariah, dan Manhaj*, trans. Abdul Hayyie al-Kattani et al., vol. 3 (Jakarta: Gema Insani, 2016), 135.

²⁸Jawhari, *Al-Jawāhir fī Tafsīr al-Qur'ān al-Karīm*, 3:50.

sensitivity to harmful stimulation.²⁹ These interpretations represent attempts to read the verse in dialogue with the scientific knowledge available to modern interpreters.

Such readings represent interpretive developments rather than the only possible or final meaning of the verse. Classical interpretation concentrates on divine punishment, bodily restoration, and the continuity of suffering. Modern scientific interpretation adds an anatomical and physiological perspective. The two levels are related but remain analytically distinct. The theological meaning originates from the wording and context of the verse, whereas the medical explanation is supplied through knowledge developed outside the Qur'anic text.

4. Correspondence between Exegesis and Medical Knowledge

Previous scholarship has already identified a relationship between Q. al-Nisā' [4]:56 and the sensory function of the skin. Hajar, Hidayah, and Wardah discuss skin structure, sensory nerves, and the loss of sensation following extensive nerve damage.³⁰ The present analysis does not claim to be the first study to identify this relationship. Its contribution lies instead in clarifying the level at which the relationship can be sustained.

At the first level, the verse associates the restoration of skin with the continuation of bodily suffering. At the second level, medical literature explains that intact cutaneous nociceptors contribute to the detection and transmission of potentially harmful stimulation. Destruction of those nerve endings can impair nociceptive signaling from the affected area, whereas functioning cutaneous innervation is necessary for the transmission of potentially harmful stimulation. A meaningful correspondence can therefore be identified between the verse's depiction of renewed skin and the biological importance of functioning cutaneous innervation.

The correspondence has clear limits. The verse does not explicitly mention nociceptors, Aδ fibers, C fibers, the spinal cord, or cerebral pain processing. It also does not classify burns according to contemporary clinical categories. These concepts belong to modern medicine rather than to the explicit terminology of the Qur'anic text. The medical evidence likewise cannot verify an eschatological event, because such an event is outside the scope of empirical clinical investigation.

A cautious *tafsīr 'ilmī* approach therefore treats medical knowledge as an explanatory lens rather than as conclusive proof of a hidden scientific prediction. Rubini warns that changing scientific theories should not be treated as the final interpretation of Qur'anic verses.³¹ Supriadi's study of scientific exegesis in Indonesia also demonstrates that the relationship between revelation and science can be constructed through different epistemological models, some of which are more vulnerable to apologetic reasoning than others.³²

²⁹Shihab, *Tafsir Al-Mishbah*, 2:476.

³⁰Hajar, Hidayah, and Wardah, "Relevansi antara Ilmu Kedokteran," 136–150.

³¹Rubini, "Tafsir 'Ilmi."

³²Supriadi, "Integrating Qur'an and Science," 149–186.

The most defensible interpretation is consequently one of limited correspondence. Q. al-Nisā' [4]:56 theologically describes the continuation of punishment through the renewal of skin. Medical knowledge explains why damage to cutaneous sensory structures can alter nociceptive signaling. This relationship enriches interpretation when the distinction between textual meaning and scientific explanation is preserved. It becomes methodologically problematic when the verse is presented as a technical medical statement or when scientific findings are used to claim that one contemporary interpretation is final and unchangeable.

D. Conclusion

Q. al-Nisā' [4]:56 describes the repeated replacement of burned skin so that punishment continues to be experienced. The selected exegetical works primarily interpret this description within the theological framework of divine justice, bodily restoration, and the continuity of eschatological punishment. Modern interpreters extend this reading by relating the verse to the sensory function of the skin.

Medical literature provides a qualified basis for this interpretive relationship. The skin contains nociceptive free nerve endings that detect potentially harmful mechanical, thermal, and chemical stimuli. Damage to these structures, including that caused by full-thickness burns, can reduce sensory signaling from the affected area. Pain, however, is not located exclusively in the skin. It is a sensory and emotional experience produced through the interaction of peripheral nociception and central nervous system processing. A full-thickness burn may be insensate at the center of maximal destruction while surrounding tissue remains painful.

The relationship between the verse and medical knowledge should therefore be formulated as interpretive correspondence rather than scientific proof. The verse supplies a theological description of renewed skin and continued punishment, whereas medical science explains the role of cutaneous innervation in nociceptive signaling. Maintaining this distinction allows *tafsīr 'ilmī* to support a disciplined dialogue between revelation and science without reducing the Qur'an to a medical textbook or presenting contemporary scientific knowledge as the verse's final meaning.

The study is limited by its focus on one verse, a selected group of exegetical works, and published medical literature. It does not provide clinical evidence or test the physiology of burn injuries directly. Future research may compare a wider range of classical and contemporary interpretations or examine how other Qur'anic descriptions of bodily sensation have been approached within scientific exegesis.

Declarations

Author Contributions: Mawaddah developed the research concept, collected and analyzed the literature, and prepared the original manuscript. Nur Raihan supervised the study, validated the analysis, reviewed the methodology, and critically revised the manuscript. Both authors reviewed and approved the final version.

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Data Availability: All materials analyzed in this study consist of publicly available Qur'anic, exegetical, and medical publications cited in the manuscript.

Ethical Clearance: This study analyzed publicly available textual materials and did not involve human participants, personal data, or clinical intervention.

Informed Consent: Not applicable.

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