IJCNP, Volume 2, Issue 5, 2024 ISSN: 2995-536X
https://medicaljournals.eu/index.php/IJCNP

INTERNATIONAL JOURNAL OF COGNITIVE NEUROSCIENCE AND PSYCHOLOGY

MODERN PRINCIPLES OF FORENSIC MEDICAL ASSESSMENT OF THE DISTANCE OF SCARS ON THE BODY

Bakhronov Bakhtiyor Bakoevich, Saibov Hakim Mavlonovich
Bukhara branch of the Republican Scientific and Practical Center for Forensic Medicine, Bukhara State Medical Institute

Annotation. In practical forensic medicine, questions often arise regarding the identification of long-standing injuries as evidence of a crime. Analysis of scars formed at the site of injury can indicate how long ago the injury was, its nature and the weapon of the crime. This article provides an analysis of literary data on modern principles of forensic medical assessment of scars on the body.
Key words: forensic medicine, scar, prescription, bodies, skin.

Relevance: According to the World Health Organization (WHO), "...every year, a large number of people in the world suffer from skin scars caused by injuries of various degrees. Most of the victims are women, their average age is 21-45 years old."

The most common type of forensic examination of living persons is the evaluation of an object such as skin scars, which is widely used in forensic practice. Unfortunately, until now, forensic research in most cases focuses on the external description of the characteristics of scars determined by an expert during a routine examination. At the same time, their main diagnostic parameters are subjectively assessed "by eye", "by touch", and such assessment is influenced by various factors, such as external (natural lighting conditions, etc.) and internal (emotional state of the researcher, individual color characteristics, etc.) showed.

The subjectivity of expert opinions is one of the most urgent problems of forensic medicine. The need for an integrated approach, represented by the use of mathematical, data processing, computer technologies, combined with the development of new, reliable methods of determining the injury parameters of regular diagnostic methods.

It is known that damage due to violation of the integrity of the skin as a result of surgical interventions, trauma, burns, post-vaccination, post-injection complications, burns, insect or animal bites, tattooing, etc. lead to the formation of scars. During a forensic medical examination, scars are an element that allows one to indicate signs of violence, allowing one to identify the mechanism and duration of external influence. At the micro level, scars are the result of the replacement of the skin's own tissues with connective tissue. In this case, normal, uncomplicated scarring leads to the formation of a flat scar that has the color of the surrounding skin, and disturbances in the course of scarring at any stage lead to the formation of a rough pathological scar. The final maturation of the scar occurs within 1–2 years, therefore, in forensic medicine, scars that are formed and old (mature) from 100 weeks or more are taken into account [1]. To solve many issues related to determining the timing (prescription) of biological processes occurring in a living and/or dead body, biophysical methods are increasingly used, which make it possible to accurately estimate the parameters necessary for a specialist [2, 3]. Features of scar formation, its dependence on certain factors (for example, in surgical patients), and age are currently not well covered and require study.

Examination of skin scars has been and remains one of the most common types of forensic examination studies, characterized by a high degree of subjectivity. Since scars on the skin are very stable formations, they are the ones that most often become the object of forensic medical examination and medical research in cases of late referral of victims for examination (examination) [1,3]. In the absence of medical

documents or defective registration of such scars, they reliably indicate the presence of previous physical injuries, allowing us to roughly judge their age, the mechanism of education, the parameters of traumatic instruments, and a number of traumatic effects [4].

The age of scar formation is determined by comparing medical documentation data and the properties of the scar, which change as it matures. During the formation of a scar during the healing of an uncomplicated sutured surgical wound, the following stages are distinguished:

1. Epithelization of the skin wound. Characterized by the development and completion of postoperative inflammation. Granulation tissue forms between the walls of the wound and epithelization begins when the edges of the skin wound come into close contact. Clinically, after removal of the sutures, the edges of the wound may separate under the influence of even a slight force. There is no scar as such yet.
2. Formation of a fragile scar. Maturation of granulation tissue and active development of fibrillogenesis with the formation of a fragile scar. Clinically, the scar is relatively easily extensible and clearly visible.
3. Formation of a durable scar. An increase in the number of fibers in scar tissue and their orientation corresponds to the dominant direction of load. Reduction in the number of cells and blood vessels. Clinically, the skin scar becomes durable and less noticeable. Under unfavorable conditions, the scar begins to hypertrophy or undergoes keloidosis.
4. Final reconstruction of the scar. There is a slow restructuring of the scar with an increase in the longitudinal orientation of the fibers; the scar tissue contains a minimal number of cellular elements and single small vessels. The skin scar gradually reaches maximum strength and becomes less noticeable. Under unfavorable conditions, a hypertrophic or keloid scar is finally formed.

Duration and properties of the scar:

Up to 1 month - Pinkish, later reddish, with a bluish tint. Soft Flat, tender, covered with crusts.

1 - 2 months - Reddish, with various shades of purple, often dark purple Dense Convex, slightly mobile.

2-3 months - Reddish. The cyanosis gradually decreases. Dense throughout. Convex, hypertrophic in nature.

3-6 months - Blueness disappears. The pink color begins to predominate. Gradually softens Convex, sometimes retracted or at the level of the surrounding skin.

From 6 months to 1 - 1.5 years - Pale pink. A brown color of various shades appears. Later whitish, with isolated areas of brown. Slightly dense or soft. The density of scar tissue varies. The surface is uneven or smooth, shiny, located at or below the level of the skin.

Over 1 year Most often whitish (white), less often brown Soft, dense cords or dense throughout Thin, atrophic, shiny, sometimes convex.

Literature

1. Литвиненко М. Н. ПРИМЕНЕНИЕ СОВРЕМЕННЫХ МЕТОДИК УСТАНОВЛЕНИЯ ВРЕМЕНИ ОСТАВЛЕНИЯ СЛЕДОВ КОЖНОГО ПОКРОВА ЧЕЛОВЕКА ПРИ РАССЛЕДОВАНИИ КВАРТИРНЫХ КРАЖ THE USE OF MODERN METHODS FOR DETERMINING THE TIME OF LEAVING TRACES OF HUMAN SKIN IN THE INVESTIGATION //С89 Судебная экспертиза: прошлое, настоящее и взгляд в будущее [Электрон. – 2023. – С. 370.
2. Мухаммадиев Ф. Н., Рузиев Ш. И., Ниязова З. А. СОВРЕМЕННАЯ ОЦЕНКА РУБЦОВ НА ЛИЦЕ В ПРАКТИКЕ СУДЕБНО-МЕДИЦИНСКОЙ ЭКСПЕРТИЗЫ //Re-health journal. – 2020. – №. 4 (8). – С. 50-54.
3. Мухаммадиев Ф. Н., Рузиев Ш. И. ПРИМЕНЕНИЕ СОВРЕМЕННЫХ СПОСОБОВ ДИАГНОСТИКИ ОПРЕДЕЛЕНИЯ СРОКОВ РУБЦОВ НА ТЕЛЕ В ПРАКТИКЕ СУДЕБНОЙ МЕДИЦИНЫ //Новый день в медицине. – 2020. – №. 4. – С. 462-465.
4. Парамонов Б. А. Нерешенные вопросы и спорные моменты диагностики рубцов кожи //Косметика и медицина. – 2015. – №. 3. – С. 16-26.

5. Поздеев А. Р. и др. Оценка зарубцевавшихся ран на коже в судебно-медицинском аспекте //Известия высших учебных заведений. Поволжский регион. Медицинские науки. – 2017. – №. 1 (41). – С. 76-83.
6. Путинцев В. А., БОГОМОЛОВ Д. В. Информационная значимость рубцов кожи в судебной медицине //Вестник военного права. – 2022. – №. 3. – С. 26-34.