



SKIN STRUCTURE AND PATIENT CARE WITH SKIN BURNS

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Abstract

This article provides detailed information on the structure and functions of human skin, as well as the basic principles of patient care in case of burn injuries. It is also useful for medical workers, nurses and relatives of patients, and contains practical instructions on proper care for burn injuries.

Keywords: skin structure, epidermis, dermis, hypodermis, skin functions, degrees of burns, causes of burns, emergency care, care of a burn patient, prevention of infection, antiseptic agents, pain relief, dehydration.

Аннотация

В статье даны подробные сведения о строении и функциях кожи человека, а также основные принципы оказания помощи пациентам с ожогами. Он также будет полезен медицинским работникам, медсестрам и родственникам пациентов и содержит практические инструкции по правильному уходу за ожогами.

Ключевые слова: структура кожи, эпидермис, дерма, гиподерма, функции кожи, степени ожогов, причины ожогов, неотложная помощь, уход за ожоговыми больными, профилактика инфекций, антисептические средства, обезболивание, дегидратация.



Annotatsiya

Ushbu maqolada inson terisining tuzilishi va uning funksiyalari, shuningdek, kuyish jarohatlari yuzaga kelganda bemorni parvarish qilishning asosiy tamoyillari haqida batafsil ma'lumot beriladi. Shuningdek, tibbiyot xodimlari, hamshiralik ishi bilan shug'ullanuvchilar va bemorlarning yaqinlari uchun foydali bo'lib, kuyish jarohatlarida to'g'ri parvarish qilish bo'yicha amaliy ko'rsatmalarni o'z ichiga oladi.

Kalit so'zlar: teri tuzilishi, epidermis, dermis, gipodermis, teri funksiyalari, kuyish darajalari, kuyish sabablari, shoshilinch yordam, kuygan bemorni parvarish qilish, infeksiya oldini olish, antiseptik vositalar, og'riqni kamaytirish, suvsizlanish.

INTRODUCTION

The skin is the largest organ of the human body, acting as a protective barrier between the external environment and the body. The main functions of the skin include protection, thermoregulation, sensation and metabolic processes. However, skin damage as a result of burns can cause serious harm to the body. Burns come in different degrees, each of which requires special medical care and care. This article discusses the structure of the skin and the basic principles of caring for patients with burns. The skin is the outer covering of the body of humans and animals. It protects the body from external influences, participates in sensation, metabolism, excretion of unnecessary substances from the body, thermoregulation, etc. In an adult, the area of the skin is 1.5 - 2 m², the thickness of which varies in different parts of the body, from 0.5 mm to 2 mm. On the palms and soles, it reaches 4; mm. The skin covers the entire body, turning into a mucous membrane in the mouth, nose, urethra, anus. The skin has a specific color and tone, which is determined by the thickness of the granular and horny layers, the location of the vessels on the surface, as well as the abundance of melanin pigment. The color of the skin can change under the influence of external and internal factors. The surface of the skin is usually uneven, with numerous folds, folds and depressions, which form the shape of triangles and rhombuses at their intersections. These are especially clearly visible on the dorsal surfaces of the paws. On the palmar surfaces of the fingers, skin folds are located in



concentric circles. These shapes form a unique pattern in each person. In personal identification (dactyloscopy), traces of these patterns are usually used.

Burns are damage to skin tissue, high temperature, aggressive substances, electricity or radiation. They can be deep when the epidermis is broken, superficial or subcutaneous tissue is damaged, or when the lower layers of the skin are damaged. Burns have different consequences depending on the degree and area of damage. Superficial ones usually heal on their own, but can leave scars. Deep ones lead to scarring. There are various remedies that can help with burns. In this article, we will talk about them.

LITERATURE ANALYSIS AND RESEARCH METHODOLOGY

This article was written on the basis of scientific literature, articles in the field of medicine and practical medical experience. The anatomical and physiological properties of the skin and the classification of burn degrees were studied. The basic principles and medical approaches used in the care of patients with burn injuries were also analyzed.

In modern conditions, burn pathology remains one of the most urgent and socially significant problems. According to world statistics, 18-36% of burns are children. Children constitute a large and often difficult continent of specialized and surgical hospitals. The course of burn shock is largely determined by the nature of the thermal agent. Scientists such as R.V. Bocharov, J. C. Montejo, N. Tsarouhas, L.M. Klyachkin, V.A. Aminev, V.K. Gusak, B. M. Shokirov have carried out a lot of work on the topic. [1; 61,62-b]

ANALYSIS AND RESULTS

Skin structure

The skin consists of three main layers:

Epidermis - the outer protective layer, has the property of self-repair.

Dermis - the middle layer, consisting of blood vessels, nerve fibers and elastic tissue.

Hypodermis - the inner layer, which contains adipose tissue, provides heat retention and energy reserves.



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The skin consists of an outer (epithelial) and inner (connective tissue) layers. These layers are separated by a basement membrane that produces various substances, and the epithelial layer contains various single- or multi-celled glands. The solid substances secreted by the epithelium serve as a skeleton and protective element in mollusks and some animals. Partial transformation of the cytoplasm of epithelial cells forms the skeleton of arthropods and the cuticle of parasitic worms, that is, a chemical and mechanical protective organ. In invertebrates, the skin epithelium is single-celled, in vertebrates it is multilayered. In vertebrates that live on land, the outermost layer of cells is completely transformed into a stratum corneum, which forms a continuously renewed stratum corneum of the epidermis. The stratum corneum of the skin of higher vertebrates and the chitinous armor of arthropods play an important role in their resistance to different temperatures and effects of the atmosphere for living on land. The feathers and feathers of some mammals and birds maintain body temperature and allow them to survive even in severe cold. The connective tissue layer or dermis forms the collagen and elastic fibers of the skin. These fibers help make the skin durable and elastic (e.g., in vertebrates, cephalopods), as well as the formation of bony and other scales in fish and the ossification of the skin (in reptiles).

Care of burn patients

First aid: apply cold water or a wet gauze bandage to the burn, but do not use ice.

Medical care: treatment with antiseptic agents, reducing pain, preventing the risk of infection.

Care: paying attention to the hygiene of burn patients, preventing dehydration and protecting the wound from infection.

Depending on the degree and size of the skin burn, patient care methods differ. While local antiseptics and moisturizers are sufficient for mild burns, severe burns require surgical intervention and intensive care. Also, patients require constant monitoring due to the high risk of complications resulting from burns, such as infection, sepsis or dehydration.

A burn is damage to the skin, tissues, muscles and bones under the influence of fire, chemical compounds, sunlight or electricity. The longer the contact with fire or other factors, the higher the degree of the burn. There are three degrees of burn: 1st degree:



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superficial damage to the skin, in which redness, swelling, dryness are observed. Such burns are obtained as a result of strong exposure to sunlight or contact with hot liquids, steam; 2nd degree: affects the upper layers of the skin. The skin turns red, blisters appear, the pain can be severe, throbbing.

Burns of more than 6 square centimeters are considered 2nd degree burns; 3rd degree: this is damage to tissues, muscles, nerves, fat layer and bones. In this case, the skin becomes red, white, yellow, black. These burns are considered extremely dangerous and painful. Scars may form on the skin from 3rd degree burns.

The main causes of burns are:

- sunlight;
- fire;
- chemicals;
- electricity;
- hot objects and surfaces;
- steam;
- boiling liquid.

2nd and 3rd degree burns with an area of more than 5 square centimeters are serious and require medical attention. In this case, urgent hospitalization may be required.

Symptoms of burns

- shock;
- pallor;
- rapid breathing;
- rapid heartbeat;
- fainting;
- severe pain;
- redness of the skin;
- blisters on the skin;

To diagnose and determine the extent of burns, they must be examined by a surgeon. If there is serious damage to internal organs, the following measures should be taken:

- computed tomography of soft tissues;
- x-ray of the affected area;
- complete blood count.



The main methods of treating burns are:

- treatment of the burn surface;
- taking painkillers and drugs with a cooling effect;
- using an aseptic bandage;
- using drugs with a hyperosmolar effect;
- a course of antibiotic therapy;
- infusion therapy aimed at replenishing the body's fluid balance;
- skin transplantation;
- administration of solutions, nutrient solutions, glucose to normalize blood circulation. [5; 103,104-b]

In case of third-degree burns, the patient is sent to the hospital's burn center for treatment.

CONCLUSION

Understanding the structure of the skin and proper care of burn injuries have a significant impact on the patient's recovery process. Immediate care and effective medical care help reduce the complications of burns. Therefore, it is very important for medical professionals and the general public to have sufficient knowledge of what to do in case of burn injuries.

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