

SCENAR IS AN INSTRUMENT USED TO RESTORE SKIN SURFACE BURNED PATIENTS

A.V. Tarakanov, O.A. Egorova, V.A. Korolyov, S.A. Harytonov,
Rostov State Medical University

Background. The skin as an organ derived from the same embryonic leaf as brain, connects and disconnects us with the outside world. The skin has multiple functions: protective mechanical; receptor function (pain, touch, temperature...); thermoregulation; breath; excreting function; chromogenesis (melatonin); endocrine function; immune function; the skin is an organ containing excretory glands (perspiratory and oil glands). The skin performs energy functions that are poorly studied but widely used in practice. Biologically active points, interdot spaces, and spaces above the skin help to perform them.

From the philosophical point of view, the skin is “peripheral brain” and the most intellectual membrane of the body. Any events in the body are reflected on the skin and vice versa! For this, the nature invented nervous, humoral, energy and holographic mechanisms. The skin has a genetically built-in program of self-restoration. The burning injury is a severe stress that results in loss of large skin areas, and the above mentioned functions.

Research purpose: to study the efficiency of different methods of SCENAR-therapy used for treating patients with heat injury; to suggest a hypothesis how to use SCENAR for treating heat injuries.

Materials and methods. The study was carried out in Rostov Heat Injury Center, Emergency Hospital-2. The number of patients (n=51) over 2001-2006. The characteristics of oxidativeantioxidative blood systems were studied. The general clinical examination, photographic recording were carried out before and after the treatment.

The SCENAR- therapy algorithm was as follows: healthy (not burned) skin was treated using three different methods, the burned areas and injury boundaries were not treated with SCENAR; the treatment was both combined and monotherapy; IDM and SDM were used.

Method 1. If the back and face were not burned – *3 pathways and 6 points* were treated every second day after cervical-collar zone was treated (IDM)...+ symmetric zones, if possible (SDM).

Method 2. (unaffected palms and sole, liver projection). Spaced electrodes; every procedure was added with 10 minute treatment of areas on palms and soles; finishing treatment - liver projection, for 10 min.

Method 3 (burned and/or unaffected palms and sole, liver projection or its symmetric zone). Spaced electrodes; every procedure was added with treatment of skin zones in the area of external middle surface of the lower leg and internal middle part of the forearm by 10 min.; finishing treatment - liver projection or its symmetric zone for 10 min.

One course of SCENAR-therapy included 10-15 daily procedures.

Results. Applying all the methods resulted in improved clinical and paraclinical blood characteristics; restored antioxidative potential with true increment in activity of superoxide dismutase and erythrocytes catalase, fewer middle-weight molecules. The intensive growth of granulation tissue and cuticularization in patients with singes were marked. An important clinical result is the start of recovery in patients with serious concomitant diseases, flabby or areactive course of burn disease.

SCENAR-therapy as a sanogenic treatment is easy to use, which is highly important. The therapist doesn't have to treat burned surface or adjoining area that is practically impossible at bands and necrotomy. To explain the beneficial effect of SCENAR-therapy when using different treatment methods, we suggested a hypothesis being one of system approach forms - P.K.Anokhin's functional systems theory.

This theory needs not to be considered in this article. At skin burns, the following skin (as an organ) dysfunctions are marked: afference arctation and advanced deprivation of information about the outside world, uncontrollability of thermal exchange, changed touch and pain sensibility, broken energymetabolism between the body and ambient environment, compromised protective barrier function, appeared hilus to loose protein and electrolytes, infection and intoxication. Besides, large wound surface causes overexertion of antinociceptive brain systems to reduce input information volume got from burned surface of skin and tissues. According to our hypothesis, there is functional denervation of all the skin, and its functional rejection develops. The body, brain cannot see it. The functional system is broken. It turns in slow regeneration, flabby or areactive course of burn disease.

In this case, SCENAR is a backbone **receptor** factor. The device generates bipolar highvoltage pulses without a direct component. These pulses depend on the state of skin and the associated internal organs and tissues. The biological feedback develops. For the body, it is a new signal whose structure is changed by it. The back afference from SCENAR to the brain has many parameters. There is electric stimulus and pain, temperature and tactile stimulation...

We should note there are regional, local mechanisms to start regeneration process. They are active in case of skin denervation in patients with spinal disorders too. That's why the skin around the wound needs local treatment.

The architecture of skin functional system is a cyclic closed self-regulated organization. Its main point is useful adaptive result: continuous restoration of lost elements and performing of its individual above-mentioned functions. The receptors mark any deviations from result. In burn injury, there are no any receptors, they are killed.

So, SCENAR eliminates afference arctation using a **polyparametric** signal, informs nerve centers about healthy skin areas, gives uncoding undetected information that allows the brain to actuate the system of non-specific activation, gives an address signal through specified zones (Su-Jock) and biologically active points, exerts local multifunctional effect. SCENAR-therapy makes functional system of skin restoration **closed**, it means operating.