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The diagnosis and treatment of poly-rheumatism remains a current problem that draws the attention of specialists from different medicine fields.

Multiple forms of trauma associated with children result from mutual worsening syndrome that complicates polytraumatism diagnosis and treatment. Around 47-76% of these children are interned in extremely serious conditions (Гордев В.С., Цыбулькин Э.К., 2010).

Material and methods. During the last 2 years, 188 children with associated trauma were treated in our clinic. The share of children traumatized in road accidents is about 76.2%. Associated traumas are classified as follows: 24% craniocerebral dominance, 11% dominant abdominal polytraumatism, 65% locomotor dominant. The diagnosis of a poly-traumatization follows three main principles: determining the state of conditions; rapid and complete check of lesions; prioritisation of injuries and determination of the order in which they will be treated.

The assessment of seriousness of conditions and the polytraumatism condition prognosis were appreciated according to the methodology proposed by Tibin (Цыбин, 2001), to the craniocerebral trauma in Glasgow. Treatment of politraumatized patients was done in the order of the dominant syndrome.

Results. The treatment methods were chosen depending on the prioritisation of the injuries regarding their dangerousness degree to the patient life. The interventions performed were:

laparotomy + surgical treatment of osteoarticular lesions 12 children

Laparotomy + cerebral decompression; 4 children

Cerebral decompression + surgical treatment of osteoarticular lesions 11 children

Surgical treatment of wounds + osteosynthesis 87 children.

The results obtained were satisfactory, 2 cases complicated with infection of adjacent tissues.

Conclusions.

For polytraumatism diagnosis it is useful to use modern, minimally invasive methods.

It is necessary to carefully monitor the change of the dominant outbreak throughout the treatment period and to surgically intervene at the right moment.

IMPROVED METHODS OF TISSUE EXPANSION IN TREATMENT OF CHILDREN WITH EXTENSIVE DEFECTS OF THE SKIN

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Introduction. Large surface skin defect closure after extensive burn trauma remains an important issue in plastic and regenerative surgery. Deficit of intact skin dictates a careful and creative approach to donor skin surfaces. Skin stretching technique using endo expansion device is a promising approach to treat large skin defects. It allows a significant reduction of scar surface area. Application of this technique for free dermal transplants allows receiving skin grafts similar to normal skin.

The goal of this approach is to form a full-thickness skin flap of a desired size in cases where traditional skin donor surface areas are limited or not available. The resulting skin flap could be used on various body parts.

The purpose of the study is to further characterize and advance the method of skin surface expansion for auto-grafting.

Purpose: to increase the potential of the expansion dermatension.

Materials and methods. In 2006-2017 years 25 patients age 4 years to 17 years with large-surface skin defects were treated using skin stretching technique. 24 patients had burn trauma and one patient had a trauma related to a car accident. All patients had scar deformations and various degrees of contractures, which were associated with significant limitations in their everyday life.

Either large (120 mm x 45 mm) or small (90 mm x 45 mm) skin stretching devices were placed endoscopically. Radio knife "Surgitron" and hydro knife "Versa jet" were used for incisions. Skin stretching was achieved by gradual expansion of latex ballooning devices using 0.9% Normal Saline over a period of 4-8 weeks. Various body areas were used as a donor site for skin stretching based on individual cases- back, lateral chest and abdomen.

4 patients received local intra dermal injections of botulinum toxin at the site of implantation of skin expansion device 3-4 days prior to the procedure.

Results. Using skin stretching devices we were able to get full-thickness donor skin surfaces ranging from 60 square centimeters to 300 square centimeters. Wounds were closed using adjacent skin tissue. Small linear normotrophic scars were formed as a result. 4 patients had some degree of peripheral necrosis at the edges, which were successfully treated using conservative methods. Scar deformations and contractures were corrected in all patients.

Conclusions. Skin stretching technique has been proven to be a useful method in managing large surface skin defects in pediatric patients with various burn trauma, scar contractures, other traumatic causes of skin defects. Skin stretching technique allows receiving a full-thickness auto skin graft of a desired size similar to normal skin. This method solves a problem with lack of skin auto-graft for closure of large surface wound areas.