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MODERN VIEWS ON THE SURGICAL TREATMENT OF PATIENTS WITH THE CONSEQUENCES OF BURNS OF THE FINGERS OF THE HAND IN CHILDREN (literary review)

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Abstract:
Thermal lesions pose a serious medical and economic problem. In industrialized countries, 300-380 cases of burns of various localization per 100,000 people are registered daily. Almost every minute, somewhere in the world, a person becomes a victim of burns with all the ensuing medical and social consequences.

Keywords: surgical treatment, burn, brush, children

INTRODUCTION. Burn injuries and their consequences often cause personal and family tragedies. The progress has been significant. progress in the treatment of burn disease has led to the emergence of a sick contingent of patients with severe consequences of thermal trauma. It should be emphasized that among the victims, a special place is occupied by persons who have received hand burns, due to the openness of this area. With extensive burns occupying more than 30% of the body surface, there are always burns of the hands[1,13]

In patients who have suffered thermal trauma, the duration of treatment, calculated in decades, is not uncommon. According to the literature, post-burn scarring of the hands with joint contractures accounts for about 32% of all post-burn deformities[3,11]. And it is she who is one of the main causes of disability of the victims: up to half (48.5%) of all cases of disability are due to deep burns of the hand. Given the high percentage of in-validation, the approach to the treatment of patients with this pathology is still far from required and needs further improvement[2,10.]

The existing post-burn defects of the hand create not only a real and permanent problem of self-care for the patient, but also significantly affect his general condition. Patients of working age are unable to perform their professional duties and lose their jobs. In the future, patients with severe post-burn deformity of the hands have a problem of employment and even normal life, which in turn leads to a significant decrease in the quality of life. Significant problems also arise in children: from the lack of self-care, to problems with learning and adaptation in society[4,14].

Long-term scar deformities in most cases lead to insufficient mobility of the joints of the hand, soldering of tendons into scars, resulting in the development and progression of arthrodesmodermogenic contractures and the formation of ankylosis of the joints of the hand[5,15]. An analysis of modern literature devoted to the restoration of hand function and working capacity after a thermal injury has shown that the isolated use of plastic and reconstructive reconstructive operations on the soft tissues of the hand does not always give satisfactory results. At the same time, the use of transosseous distraction devices at the first stage of treatment allows solving many issues of rehabilitation of patients with this pathology, as well as creating conditions for further reconstructive and rehabilitation measures[6,18]. But the issue of the use of external fixation devices in the treatment of post-burn deformity of the hand both in the early post-traumatic period (after burn and electric trauma) and at the stage of formation of gross deformities and the development of complications in the form of subluxations and dislocations in the metacarpophalangeal and interphalangeal joints has not been studied enough; there are no clear indications and contraindications to the use of distraction devices. To date, there is no clear justification in which cases it is advisable to use the method of skin grafting in isolation, and in which cases - plastics in combination with the use of a distraction device[9,17]. There are no clear algorithms of surgical tactics in the treatment of patients with post-burn deformity of the hand in children, as well as continuity and a unified view of this problem between combustiologists and hand surgeons. The lack of generalizing works and unified systems for evaluating outcomes causes certain difficulties in comparing treatment results, identifying advantages and disadvantages[19].

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The literature provides isolated data on reconstructive plastic surgery for scarring of the hand, as well as the use of distraction transosseous external fixation devices at the stages of rehabilitation. There is no data on the simultaneous use of a hardware method of treatment and skin plastic surgery. Indications and contraindications for such use have not been established[20]. The procedure for performing the operation in patients with severe post-burn scar deformity of the hand, when there are contractures and subluxations of the finger joints, is not clearly described. There are no long-term treatment results. The described cases of treatment of patients with this pathology were, as a rule, reduced to various options for surgical treatment of existing scars, and the use of devices was either only for postoperative fixation, or for use at the second stage in the long-term postoperative period[21].

Plaster splints and spokes are still used to fix joint movement in the postoperative period, but these methods have a number of disadvantages such as bone trauma that lead to complications in the form of pressure sores, sometimes to osteomyelitis of the finger bones[22]

CONCLUSIONS: Thus, the following disadvantages have been identified in the treatment of post-burn scar contractures of the fingers of the hand in children:
- there are no burn departments in the Republic that provide specialized care to patients in need of comprehensive treatment for the consequences of burns of the fingers of the hand;
- an undifferentiated approach to complex therapeutic and preventive measures in various stages of skin plastic surgery in children with post-burn scar contractures of the fingers of the hand;
- there is a pattern in the use of various destructors in the therapeutic and preventive program at the stages of surgical treatment of patients with the consequences of burns of the fingers of the hand in children;
- indications and contraindications to the use of distraction devices with external fixation at the stages of rehabilitation have not been established

LIST OF LITERATURE:

1. Azolov V.V., Alexandrov N.M. Methods of reconstruction of the fingers of the hand in the aftermath of mechanical, gunshot and thermal injury // International Medical Journal. 2004. No. 1. pp. 117-123.
2. Ismoilov M.M., Khodjamuradov G.M., Saidov M. S., Shaimonov A.H. The use of a non-free inguinal flap for simple superficial defects of the upper limb // Reports of the Academy of Sciences of the Republic of Tajikistan. 2015. Vol. 58. No. 5. pp. 440-445.
3. Khodjamuradov G.M., Ismoilov M.M. Plasty of deep extensive defects of the integumentary tissues of the upper limb // Annals of plastic, reconstructive and aesthetic surgery. 2013. No. 2. pp. 58-66.
4. Afonichev K.A., Nikitin M.S., Kuptsova O.A. Treatment of postoperative secondary foot deformity // Orthopedics, traumatology and reconstructive surgery of childhood. 2015. No. 2. p. 5255.
5. Baindurashvili A.G., Afonichev K.A., Filippova O.V. Postoperative scarring of the feet: features of the clinic, treatment // Orthopedics, traumatology and reconstructive surgery for children. 2014. No. 1. pp. 18-26.
6. Biktasheva E.M., Minasov B.Sh., Valeev M.M. Modern surgical technologies for extensive defects and scar deformations of soft tissues of the proximal part of the foot using functional flaps // Medical Bulletin of Bashkortostan. 2015. Vol. 10. No. 1. pp. 39-44.
7. Bogov A.A., Ibragimova L.Ya., Mullin R.I. Application of vascular skin grafting with a medial flap of the foot to replace a soft tissue defect of the foot // Practical medicine. 2012. No. 8-1 (64). pp. 86-87.
8. Grechishnikov M.I. Algorithm of surgical treatment of patients with the consequences of burn injury: abstract. dis. ... candidate of Medical Sciences. M., 2015.
9. Afonichev K.A. Prevention and treatment of scarring consequences of burns in children: abstract. dis. . Doctor of Medical Sciences, St. Petersburg, 2010.
10. Bogosian R.A. Expander dermatension - a new method of surgical replacement of skin defects // Modern technologies in medicine. 2011. No. 2. pp. 31-34.
11. Procter F. et al. Rehabilitation of the burn patient // Indian Journal of Plastic Surgery. 2010. V. 43. No. 3. P. 101.
12. Malikov M.H., Kurbanov U.A., Davlatov A.A. Transplantation of vascular bone grafts in traumatic defects and false joints of bones of the upper limb // News of surgery. 2012. No. 5. pp. 82-90.
13. Yakovlev S.V. Endoprosthetics of hand joints in postoperative deformation and dysfunction // Bulletin of the All-Russian Scientific Research

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Center of the Russian Academy of Medical Sciences. 2011. No. 4-1. pp. 217-221.
14. Dowrick A.S. et al. Does the disabilities of the arm, shoulder and hand (DASH) scoring system only measure disability due to injuries to the upper limb? // Journal of Bone & Joint Surgery, British Volume. 2006. V. 88. No. 4. pp. 524-527.
15. Khanin M.Yu., Valeev M.M., Chistichenko S.A., Minasov T.B., Yaku-pov R.R. Surgical treatment of patients with post-traumatic defects of soft tissues of the lower leg with multiple and combined injuries // Practical medicine. 2011. No. 6 (54). pp. 115-121.
16. Faizov A.O., Valeev M.M., Valeeva E.M. Clinical, morphological and immunological substantiation of the advantages of using vascularized flaps in the surgical treatment of patients with scar deformities and extensive defects of the soft tissues of the hand // Medical Bulletin of Bashkortostan. 2011. Vol. 6. No. 3. pp. 84-87.
17. WangX.Q. et al. Ultrasound assessed thickness of burn scars in association with laser Doppler imaging determined depth of burns in paediatric patients // Burns. 2010. V. 36. No. 8. P. 1254-1262.
18. Alexandrov N.M., Petrov S.V. Skin and bone reconstruction of fingers using blood-supplied transplants // Modern technologies in medicine. 2011. No. 4. pp. 22-27.
19. Dmitriev G.I., Arefyev I.Yu., Korotkova N.L., Menshenina E.G., Poyato T.V., Bogosian R.A., Polyakova A.G. Improvement of complex rehabilitation of patients with the consequences of burns // Medical Almanac. 2010. No. 2. pp. 225-228.
20. Tokarev A.E., Kozyukov V.G. Primary reconstructive operations for open injuries of the hand and fingers aimed at restoring the grip function // Perm Medical Journal. 2013. No. 3. pp. 41-45.
21. Sarygin P.V., Korotkova N.L. Development of a unified approach to surgical treatment of scarring of the lower third of the face after a burn // Annals of Surgery. 2012. No. 6. pp. 10-14.
22. Popova O.V., Sorokina V.O., Minasov B.Sh., Popov O.S. Medical rehabilitation of patients who have suffered severe thermal trauma using modern surgical technologies // Medical Bulletin of Bashkortostan. 2013. Vol. 8. No. 6. pp. 103-105.