

TREATMENT OF ERYSIPELAS IN CHILDREN WITH THE USE OF INTRAVENOUS LASER BLOOD IRRADIATION, HYDROGEL AND OINTMENT DRESSINGS

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ABSTRACT — The work evaluated the clinical effectiveness of complex treatment of erysipelas in children with the use of intravenous laser irradiation of blood, hydrogel dressings of miramistin and ointment dressings of branolind. The study group included 25 children aged 6 to 17 years with erysipelas of various forms, etiology and localization. All children underwent standard conservative therapy. Method of use of complex treatment with application of intravenous laser irradiation of blood, hydrogel dressings of miramistin and ointment dressings of branolind was as follows: after treatment and toilet of the wound made the application of the drug directly on the wound surface. Hydrogel bandage miramistina was carefully modeled in accordance with the size of the wound surface and fixed with gauze bandage. Further, intravenous laser irradiation of blood was carried out. In the phase of healing has been used ointment dressings of branolind. These drugs were first used in combination with standard therapy for the treatment of erysipelas in children of different localization and origin. The therapeutic efficacy has been studied and the indications for the use of a new combined method of treatment of erysipelas inflammation are substantiated.

KEYWORDS — children, erysipelas, wound process, intravenous laser irradiation of blood.

In pediatric surgery, we have to face more often with erysipelas inflammation. Currently, there is an increase in morbidity in the children's contingent, independent of regional and social characteristics, living standards. This pathology is most common in children in the form of complications after injuries and burns and prevails in rural areas.

Erysipelas — acute progressive inflammation of the serous nature, affecting the skin. Allocate erythematous (more common), bullous and gangrenous form. [6]

The gold standard in the treatment of patients

with erysipelas today is a comprehensive treatment. For the treatment of erysipelas in children at the present time widely used general and local antibacterial therapy, means on the basis of gauze, which, having numerous positive qualities, yet have a number of significant drawbacks [1]. This necessitates the development of new combined methods of treatment of erysipelas in children.

Currently In the clinical practice for the treatment of erysipelas in children began to use drugs on the basis of the hydrogel [2, 3].

Preparations of this group are applicative drugs and have a number of advantages: high elasticity, atraumatic, good drainage properties, a certain strength, which protects the wound surface from mechanical damage. Hydrogel preparations can be used in conjunction with local antibiotics, which increases the antimicrobial activity of drugs based on hydrogel [4, 5].

The purpose of this study was to evaluate the clinical efficacy of complex treatment of erysipelas in children with the use of intravenous laser irradiation of blood, hydrogel dressings of miramistin and ointment dressings of paneling.

The study was conducted at the Department of pediatric surgery of Astrakhan state medical University in the period from 2014 to 2017. The study group included 25 children aged 6 to 17 years with erysipelas of various forms, etiology and localization (erythematous and erythematous-bullous forms). There were 17 boys and 8 girls in the group.

All children underwent standard conservative therapy. The task of conservative treatment was to create optimal conditions for stopping of the inflammatory process.

The method of use of complex treatment with the use of intravenous laser irradiation of blood, hydrogel dressings of miramistin and ointment dressings of paneling was as follows: after treatment and toilet wounds made application of the drug directly to the wound surface. hydrogel dressings of miramistin was carefully modeled according to the size of the wound surface and fixed with gauze bandage. Further intravenous laser irradiation of blood was carried out. In the healing phase ointment dressings of paneling was used.

During the first phase – the phase of inflamma-

tion and exudation, standard conservative therapy was used, after treatment and toilet wounds the application of hydrogel dressings of miramistin was performed on the wound surface in accordance with the size of the wounds. At each ligation was carried out sanitation of the wound with warm saline solution. The wound was treated with an aqueous solution of chlorhexidine. After each ligation the patients were performed intravenous laser irradiation of blood.

In the phase of granulation and epithelialization was used hydrogel dressings of miramistin. Each ligation was carried out sanitation of the wound with warm saline solution. Fixation was carried out with a gauze bandage.

Ligation was carried out through the day. Special antibacterial therapy of wounds was not performed. In the healing phase ointment dressings of paneling was used.

The treatment period lasted from 5 to 12 days depending on the size of the wound surface and the characteristics of the course of the wound process (on average 7–9 days). The evaluation of therapeutic efficacy was carried out according to various criteria: body temperature, changes in the wound surface area, laboratory parameters, the state of the wound edges, the presence of necrotic tissues, the nature of the discharge, the severity of signs of inflammation (hyperemia, edema, local temperature increase).

On the 5th day of treatment there was a decrease in the surface area of wounds, a decrease in the severity of the inflammatory process, changes in the nature of the discharge. A similar study on the 7th day of treatment showed improvement of laboratory results, normalization of body temperature, relief of inflammation, reduction of surface wounds by 60%, the absence of discharge. On the 9th day the area of wounds decreased by 90%, there was a complete relief of inflammation, epithelialization of the edges of wounds.

CONCLUSIONS

1. The use of the method of complex treatment of erysipelas in children in the form of a combined intravenous laser irradiation of blood, hydrogel dressings of miramistin and ointment dressings of paneling allows to achieve greater efficiency of the therapy in the background of standard treatment.

2. The proposed method of combined treatment can be recommended for wide clinical use as a supplement to standard treatment.

The authors declare that there are no conflicts of interest related to this article.

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