

УДК 616. 5 - 002. 34 - 091. 8: 599. 324. 7]: 616. 31

**FEATURES
OF THE PATHOHISTOLOGICAL PICTURE OF A PURULENT
WOUND IN GUINEA PIGS WITH BOILS
OF THE CHIN AREA WITH THE STANDART METHOD
IN CONJUNCTION WITH REFLEXOLOGY**

Fleryanovich M. S., Khmaj Zakaria

Belorussian State Medical University, Minsk;

Vitebsk State Medical University, Vitebsk, Republic of Belarus

Introduction. The most common nonontogenic inflammatory diseases of the maxillofacial region include furuncles. Especially important in their treatment is the primary surgical treatment and stimulation of reparative processes. The use of reflexology allows you to speed up the healing process, reduces the pharmacological burden on the body.

Aim of work - to assess the effect on the course of the inflammatory process in experimental animals with a furuncle of the chin area of reflexology.

Objects and methods. Histological material was taken from 10 guinea pigs. It was carried out on 3, 7, 14, 21 days after the creation of a furuncle in the chin area. The preparations were stained with hematoxylin-eosin. The smears were studied using light microscopy.

Results. On the third day, dermal necrosis, purulent inflammation is determined in all tissue samples. On the seventh day, purulent inflammation is determined in all samples. On the fourteenth day, a morphological conclusion is given: productive inflammation. On the twenty first day there was a relief of the inflammatory process and healing of a purulent wound.

Conclusion. On the third day, dermal necrosis is determined in all tissue samples. On the twenty first day there was a relief of inflammation.

Keywords: furuncles; histological examination; guinea pigs; reflexotherapy.

**ХАРАКТЕР ПАТОГИСТОЛОГИЧЕСКОЙ КАРИНЫ
ГНОЙНОЙ РАНЫ У МОРСКИХ СВИНОК С ФУРУНКУЛОМ
ПОДБОРОДОЧНОЙ ОБЛАСТИ ПРИ СТАНДАРТНОМ МЕТОДЕ
ЛЕЧЕНИЯ СОВМЕСТНО С РЕФЛЕКСОТЕРАПИЕЙ**

Флерьянович М. С., Хмадж Захария

УО «Белорусский государственный медицинский университет»,

г. Минск; УО «Витебский государственный

медицинский университет», г. Витебск, Республика Беларусь

Введение. К наиболее часто встречающимся воспалительным заболеваниям челюстно-лицевой области относятся фурункулы. Особенно

важным при их лечении является первичная хирургическая обработка, оптимизация репаративных процессов. Применение рефлексотерапии позволяет ускорить процесс выздоровления, снижает фармакологическую нагрузку.

Цель - оценить влияние рефлексотерапии на течение воспалительного процесса у экспериментальных животных с фурункулом подбородочной области.

Объекты и методы. Гистологический материал был взят у 10 морских свинок. Забор проводился на 3, 7, 14, 21 сутки после создания фурункула подбородочной области. Окраску микропрепаратов проводили гематоксилин-эозином. Препараты исследовали методом световой микроскопии.

Результаты. На третьи сутки во всех образцах тканей морских свинок определяется некроз дермы, гнойное воспаление. На седьмые сутки во всех образцах определялось гнойное воспаление. На четырнадцатые сутки дано морфологическое заключение: продуктивное воспаление. На двадцать первые сутки происходило купирование воспалительного процесса, заживление гнойной раны.

Заключение. На третьи сутки во всех образцах тканей определяется некроз дермы. На двадцать первые сутки происходило купирование воспаления и заживление гнойной раны, что подтверждало позитивное влияние рефлексотерапии.

Ключевые слова: фурункул; патогистологическое исследование; морские свинки; рефлексотерапия.

Introduction. The most common non-inflammatory skin diseases include boils of the maxillofacial region. The problem of treating patients with these diseases is currently becoming increasingly important, which is largely due to the deterioration of the environmental situation, a change in traditional nutrition, and chronic stress.

Treatment of patients with furuncles of the maxillofacial region should be comprehensive, that is, include surgical and conservative methods. Therapy is carried out in a hospital and depends on the stage of the process. Especially important in the treatment of facial boils is the conduct of adequate primary surgical treatment of the purulent focus, effective sanitation of the wound surface from purulent-necrotic tissues; stimulation of reparative processes, which is of great importance for the rapid rehabilitation of patients, reduce the number of complications and achieve aesthetic results. A large number of additional methods are proposed for the treatment of purulent wounds, but their results are not always effective [1].

Dynamic electroneurostimulation, both in combination with other types of treatment, and as a separate method of therapy, contributes to

positive dynamics in many acute and chronic diseases. The use of reflexotherapy devices allows you to speed up the healing process, reduces the pharmacological burden on the body and contributes to the rapid restoration of health. Reflexotherapy has few contraindications for use, there are practically no side effects, when using the device intoxication is excluded, the chance of allergic reactions and side effects is very low [3].

A clear idea of the average duration of wound healing with the standard complex treatment of furuncles of the maxillofacial region together with reflexology helps to determine the need, the best selection and evaluate the effectiveness of the proposed additional method aimed at recovering the patient. For this reason, it is necessary to conduct a histological examination of tissue sites from the area of the purulent focus in the studied category of patients.

Excision of tissue samples for their microscopic examination in patients with furuncles of the maxillofacial region is impossible for ethical and aesthetic reasons. However, laboratory animals can be used for this purpose.

Aim of work to assess the effect on the course of the inflammatory process in experimental animals with a furuncle of the chin area of DENS-therapy in combination with a standard treatment method.

Objects and methods. A series of studies was conducted to study the microscopic state of tissues and the timing of wound healing in the chin area in guinea pigs after the initial surgical treatment of the chin boils simulated in them [2, 4].

After the intervention, the animals are placed in separate cages, under the supervision of a veterinarian. During the first hour after the intervention, the animals begin to eat the usual food, which indicates the insignificance of the action of the traumatic agent in relation to their general condition. A boil in the submandibular region of the experimental animal is formed within 3 days.

In the postoperative period, the animals underwent daily dressings with the obligatory change of drainage and instillation of purulent wounds with antiseptic solutions. Conducted antibiotic therapy.

After dressing the guinea pigs with the furuncle of the chin area, sessions of dynamic electroneurostimulation with the DiaDens-PK device were performed. In total, for this treatment, we selected the projection of eight acupuncture points on the skin of experimental animals, which were exposed to a point electrode. Of these, three were asymmetric, and five were symmetrical.

Under local anesthesia sol. Articaini 4% - 1 ml tissues of experimental animals were collected from the central region of the purulent focus on 3, 7, 14, 21 days after the creation of the boil.

The preparations were stained with hematoxylin-eosin and studied by light microscopy.

Results. In all sections taken from experimental animals on the third day after the occurrence of a furuncle in the chin region, histological analysis determines dermal necrosis and severe inflammatory infiltration of the papillary dermis with a predominance of segmented white blood cells. Based on what the morphological conclusion is given: necrosis, purulent inflammation.

The microscopic picture of 37.5% of tissue preparations taken on the seventh day of the development of the furuncle in the chin area of the guinea pigs showed the presence of diffuse segmented leukocyte infiltration of the papillary dermis, two cavity formations with hemorrhagic contents.

In 62.5% of cases, an extensive inflammatory infiltrate is determined with a predominance of segmented white blood cells. At the center of the infiltrate, tissue necrosis is determined, hemorrhagic soaking along the periphery of the focus of inflammation. These signs are characteristic of purulent inflammation.

On the fourteenth day, on all sections taken from experimental animals from the chin area, a small accumulation of mononuclear cell elements is determined. This suggests the presence of productive inflammation.

Based on the histological picture of 100% of sections taken from guinea pigs on the twenty-first day, the morphological conclusion indicates the absence of signs of inflammation.

Conclusion. On the third day, in all tissue samples of guinea pigs, which, in addition to standard treatment, were subjected to DENS-therapy, dermal necrosis and purulent inflammation are determined.

However, already on the twenty-first day of the course of the studied inflammatory process, the inflammatory process was completely stopped and the purulent wound was healed in all guinea pigs.

References.

1. Borodulina, I. I. Furuncle and carbuncle of the maxillofacial region : study guide / I. I. Borodulina, I. S. Klimova. – Chita : RIC ChGMA, 2011. - 67 p.
2. Denisov, S. D. Requirements for a Scientific Experiment Using Animals / S. D. Denisov, T. S. Morozkina // Zdravooohranenie. - 2001. - № 4. - P. 40-42.
3. Mandra, J. V. The experience of using dynamic electroneurostimulation in the complex treatment of dental diseases / J. V. Mandra, S. S. Grigoriev, E. N. Svetlakova / Actual Probl. of Stom. - 2014. - № 3 – С. 21-24.
4. Republican sanitary-hygienic and sanitary-anti-epidemic rules and norms. Safety of work with microorganisms 3 and 4 pathogenicity groups and helminths // Sanitary rules SR 17-129 RB 2000. - Minsk : Ministry of Health of the Republic of Belarus, 2002. - 52 p.