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COMPREHENSIVE TREATMENT OF DEEP FACIAL BURNS. A CLINICAL CASE

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Abstract

The article summarizes a case from practice, which describes the comprehensive treatment of a patient with a deep contact burn of the face.

Throughout the development of humankind, people have been faced with the need to treat severe wounds, with facial injuries being of particular importance. Ancient sources describe that facial injuries were very common in Ancient India and the countries of the Middle East.

Patient S. was admitted to the Almaty City Emergency Hospital in 2019. She received a thermal injury at home, according to the patient, she lost consciousness while cooking and fell on a burning gas stove burner. Upon admission, the general condition of the patient was severe, due to the injury and the presence of somatic pathology.

The postoperative period was uneventful. Thus, in order to obtain satisfactory results in the surgical treatment of deep burns of the face, one operation is not enough, complex treatment is required, which includes physiotherapy and corrective operations, this is the only way to achieve the optimal, i.e. desired result. The need to develop new recommendations and their practical implementation for the treatment of this pathology will improve the quality and optimize the treatment of victims.

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Conflict of interest

The authors declare that they have no
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Keywords:

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Беттің терең күйіктерін кешенді емдеу. Клиникалық жағдай

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Аңдатпа

Мақалада бетінің терең жанасу күйігі бар науқасты кешенді емдеу сипатталған тәжірибеден алынған жағдай жинақталған.

Адамзаттың бүкіл дамуы барысында адамдар ерекше маңызды бет жарақаттары бар ауыр жараларды емдеу қажеттілігіне тап болып жатады. Ежелгі дереккөздерде бет жарақаттары Ежелгі Үндістан мен Таяу Шығыста жиі болғанын сипатталады.

Науқас С. 2019 жылы Алматы қалалық жедел жәрдем ауруханасына түскен. Ол үйінде термиялық жарақат алған, науқастың айтуынша, тамақ пісіру кезінде есінен танып, жанып жатқан газ плитасының оттығына құлаған. Жарақаттануға және соматикалық патологияның болуына байланысты түскен кездегі жалпы жағдайы ауыр.

Операциядан кейінгі кезең бірқалыпты өтті. Осылайша, беттің терең күйіктерін хирургиялық емдеуде қанағаттанарлық нәтиже алу үшін бір операция жеткіліксіз, күрделі емдеу қажет, оның ішінде физиотерапия және түзету операциялары қажет, тек осылай ғана оңтайлы нәтижеге, яғни қалаған нәтижеге қол жеткізуге болады. Осы патологияны емдеу үшін жаңа ұсыныстарды өзірлеу және оларды практикалық енгізу қажеттілігі зардап шеккендерді емдеудің сапасын жақсартуға және оңтайландыруға мүмкіндік береді.

Комплексное лечение глубоких ожогов лица. Клинический случай

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Аннотация

В статье обобщен случай из практики, в котором описано комплексное лечение больного с глубоким контактным ожогом лица.

На протяжении всего развития человечества люди сталкивались с необходимостью лечения тяжелых ран, при этом особое значение имели травмы лица. Древние источники описывают, что травмы лица были очень распространены в Древней Индии и странах Ближнего Востока.

Больная С. поступила в Алматинскую городскую больницу скорой медицинской помощи в 2019 году. Получила термическую травму дома, со слов больной, во время приготовления пищи потеряла сознание и упала на горящую конфорку газовой плиты. При поступлении общее состояние тяжелое, в связи с травмой и наличием соматической патологии.

Послеоперационный период протекал гладко. Таким образом, для получения удовлетворительных результатов при хирургическом лечении глубоких ожогов лица одной операцией недостаточно, требуется комплексное лечение, включающее физиотерапевтические и корригирующие операции, только так можно добиться оптимального, т.е. желаемого результата. Необходимость разработки новых рекомендаций и их практического внедрения для лечения данной патологии позволит повысить качество и оптимизировать лечение пострадавших.

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Конфликт интересов

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ожог, лицо, операция,
физиотерапия

Relevance

Throughout the development of humankind, people have been faced with the need to treat severe wounds, with facial injuries being of particular importance. Ancient sources describe that facial injuries were very common in Ancient India and the countries of the Middle East [1, 2]. They caused serious dysfunction of the organs of the face, which largely explains the attempts to develop ways to restore the lost skin. With the development of society, attention to the appearance of a person has grown significantly. Nowadays facial defects, in addition to functional disorders, cause severe emotional distress and inevitable, to a greater or lesser extent, psychological disorders that impede social adaptation. Therefore, in the XXI century treatment of victims with injuries of the maxillofacial region has become of great importance. Limited deep burns of the face account for 2 to 6.3% of the total structure of burn injuries [3, 4]. Currently, in the treatment of victims with deep burns, active surgical tactics are justified regardless of the area of skin damage [5-7]. In most hospitals, the stratification of the severity of the condition of the burnt depends on the area and depth of the burn. Modern methodology requires assessing the severity of the condition and making a decision on the choice of treatment tactics based on the probability of an unfavorable outcome of the disease, i.e., based on the prognosis [3]. Severely burned patients need to perform necrectomy no later than 3 days after the injury, extremely severely burned patients - on the 1st-2nd day with simultaneous autodermoplasty [8]. Subsequently, victims with deep facial burns who were

admitted early after injury should undergo necrectomy as soon as possible. Treatment of deep facial burns is one of the most difficult tasks in combustiology and reconstructive plastic surgery. This is due to the high significance of the face in functional and aesthetic terms [9-10]. The area of the face is equal to 3.12% of the body surface. However, despite the small area, functionally important organs are concentrated in this area of the body [10]. In the treatment of deep burns of the face, the opinions of specialists in the choice of surgical tactics differ. According to the literature data, scar tissue is formed after 6-12 months [12-13]. Therefore, for a long time, surgical treatment of the consequences of facial burns was performed 1 year after the injury, since in the early post-traumatic period the operation was accompanied by profuse blood loss, reduced mobility of fresh scars, eruption of scar-modified flaps with suture material, and the remaining scarring process caused recurrence of deformities [14]. Clarkson objected to early surgical treatment of burn cicatricial deformity in patients, since he believed that the later the operation is performed, the better the result [15]. Thus, V. S. Savchin believes that burn wounds of the face need to be cleansed of necrotic tissues as early as possible and skin autotransplantation, since independent rejection of necrotic tissues, the formation of a granulating surface and skin grafting do not always give satisfactory results, but, on the contrary, cause the formation of gross cicatricial deformities. Even the use of split skin, which is more prone to retraction than full-thickness skin, does not mean leading to gross scarring. Great difficulties arise in the defeat of areas

of the face with mobile tissues and natural openings, in particular the palpebral fissure. Despite the early necrectomy, autodermoplasty with full-thickness skin, the process of scarring from the 3rd week can lead to eversion of the eyelids. Long-term blepharorrhaphy does not give the desired effect. It is almost impossible to keep the eyelid in a straightened state. Retraction of transplanted grafts makes the face mask-like, depriving it of natural expression and facial expressions. Despite all modern methods of surgical treatment, the appearance of a person after reconstructive surgery of the face changes beyond recognition. Attempts to improve cosmetic results become ineffective at some point and should be discontinued. Thus, at present there is no single tactic for the treatment of deep burns of the face, which is the reason for the continuing high frequency of functional, aesthetic disorders, increased disability in such patients. The development and practical implementation of recommendations for the treatment of this pathology will improve the quality and optimize the treatment of victims [16-20].

Case study

Patient S. was admitted to the Almaty City Emergency Hospital in 2019. She received a thermal injury at home, according to the patient, she lost consciousness while cooking and fell on a burning gas stove burner. Upon admission, the general condition of the patient was severe, due to the injury and the presence of somatic pathology.

Locally: the entire left half of the face from the scalp, the left auricle is covered with a dry scab of a dirty gray color, of a dense consistency. Given the severity and nature of the injury, the patient was hospitalized in the intensive care unit.

After relief of shock, she was transferred to the traumatology department. Where general, analgesic, infusion, detoxification therapy and local treatment of wounds by the closed method were carried out, chemical necrolysis was performed with Shnyrev's paste for 2.5 weeks, and necrectomy was performed at the beginning of 3 weeks. At the end of the 4th week, at the beginning of the 5th week, an operation was performed - delayed autodermoplasty on granulating wounds of the face and scalp.

After the operation period proceeded without complications, the first dressing was made after 48 hours, on the dressing: there was a disease of the graft (the edges of the grafts), which were stopped with a solution of dimexide diluted with a solution of furacillin. (Fig. 1-7). On the 10th day, the grafts survived by 99% and the patient was discharged for outpatient aftercare at the place of residence. The patient was followed up for 2 years. The patient after 2 months noted the eversion of the upper eyelid, asymmetry of the face, due to the formation of hypertrophic scars of the upper left eyelid in the postoperative period in the rehabilitation period, physiotherapy was carried out with the drug fermentol for 6 months.

Figure 1.
The first 48 hours after surgery





Figure 2.
2 weeks later

After 6 months, in order to eliminate the eversion of the left eyelid, the excision of the scar, blepharoplasty (free autodermoplasty) was performed. The postoperative period was uneventful. Thus, in order to obtain satisfactory results in the surgical treatment of deep burns of the face, one operation is not enough, com-

plex treatment is required, which includes physiotherapy and corrective operations, this is the only way to achieve the optimal, i.e. desired result. The need to develop new recommendations and their practical implementation for the treatment of this pathology will improve the quality and optimize the treatment of victims.



Figure 3.
2 months later

Figure 4.
4 months later



Figure 5.
4 months later



Figure 6.
6 months later



Figure 7.
At present time



Conclusions

To obtain satisfactory results in the surgical treatment of deep burns of the face, one performed operation is not considered to be sufficient, no matter what kind of it is, i.e. primary necrectomy and delayed ne-

crectomy followed by autodermoplasty for granulating wounds.

Comprehensive treatment is required, which includes physiotherapy and corrective surgeries, this is the only way to achieve the desired result.

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