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Аннотация: *Актуальность. Термический ущерб представляет собой серьезную медицинскую, социальную и экономическую проблему. Развитие тяжелой промышленности и химической промышленности, а также широкое использование электричества в повседневной жизни и в промышленности будут способствовать значительному увеличению ожоговых травм. Цель исследования. Улучшение результатов ранней некрэктомии с использованием аутодермопластики у больных с ожогами с применением местного кровоостанавливающего средства «Гепроцель». Материалы и методы. Работа основана на анализе результатов лечения 35 пострадавших (37 женщин и 68 мужчин) в возрасте от 18 до 75 лет, находившихся на лечении в отделении компустиологии Андижанского филиала Республиканского научного центра экстренной медицины. средний возраст пациентов составил 39 лет. В большинстве случаев травмы были вызваны огнем, ожогами кипятком, также наблюдались контактные ожоги. Наши исследования показали, что ранняя хирургическая некрэктомия и получение изолированных автографов с донорских участков выполняются после кровопотери (6–10 мл крови на 100 см² площади) и применения гемостатического порошка Heparocel. Когда раневой дефект был закрыт, крышка донорского аппарата показала хорошее прилегание к подкожной ране. Выводы. Однократное нанесение гемостатического препарата heparocel на рану после некрэктомии обеспечивает быстрое прилегание шва во время аутодермопластики, обеспечивая быстрое и полное прилегание кожи.*

Ключевые слова: *гепроцель, , некрэктомия, гемостатические агенты (ГВ), аутодермопластика (АДФ), диссеминированный.*

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Abstract. *Relevance. Thermal damage poses a serious medical, social and economic problem. The development of heavy industry and the chemical industry, as well as the widespread use of electricity in everyday life and industry, will contribute to a significant increase in burn injuries. Purpose of the study. Improving the results of early necrectomy using autodermoplasty in*

patients with burns using the local hemostatic agent "Heprocel". Materials and methods. The work is based on the analysis of the results of treatment of 35 victims (37 women and 68 men) aged 18 to 75 years, who were treated at the Department of Comustology of the Samarkand branch of the Republican Scientific Center for Emergency Medicine. the average age of the patients was 39 years. In most cases, the injury was caused by fire, burning with boiling water, and contact burns were also observed. Results. Our studies have shown that early surgical necrectomy and obtaining isolated autographs from donor sites are performed after blood loss (6–10 ml of blood per 100 cm² area) and the use of Heprocel hemostatic powder. When the wound defect was closed, the donor machine lid showed good adhesion to the subcutaneous wound. Conclusions. A single application of the hemostatic preparation heprocel to the wound after necrectomy ensures fast adhesion of the suture during autodermoplasty, ensuring fast and complete adhesion of the skin.

Keywords: *heprocel, necrectomy, hemostatic agents (GV), autodermoplasty (A DP), disseminated intravascular syndrome (DIC).*

EFFICIENCY OF HEPROCELS THE TREATMENT OF PATIENTS WITH DEEP BURNS

Relevance. Thermal injury defines a serious medical, social and economic problem. The development of heavy industry and the chemical industry, as well as the widespread use of electricity in domestic and industrial environments, will contribute to a significant increase in burn injuries. In the literature, the stable number of victims of thermal injuries, their share among injuries in peace is 5-12%. In the general structure of the injury, burns occupy 2-3 places [1,2], which account for the majority of deep burn injuries that require surgical treatment.

The essence of surgical treatment of deep burns is that in one way or another the area of the burnt skin is composed of the necrotic tissue. The most common way to restore skin integrity is to perform free skin autodermoplasty. Preparation of the wound before autodermoplasty of the burned area and the cleaning of the wound from necrotic tissue. Preparation of burn wounds for autodermoplasty can be done at different times, in different ways that are considered to be more or less "aggressive". In all cases, the closure of the wound surface is the final step [3,4,5].

Historically, two main directions of surgical treatment of burns have been developed: 1) autodermoplasty, which granulates wounds after self-rejection of necrotic tissue or chemical necrectomy; 2) early surgical necrectomy before inflammation in wounds and then autodermoplasty [6].

Spontaneous rejection of dead tissue with deep burns results in complete cleansing of the wound surface after 4–6 weeks. The long-term presence of burn scars prevents the implementation of autodermoplasty, promotes the development of pyogenic microflora in the burn wound and the release of toxins [7, 18].

There are opportunities to stop the burn disease and its progression due to early surgical treatment (simultaneous or delayed autodermoplasty to remove the burn within the first 3-7 days after injury) [8].

The time required to prepare burn wounds for autodermoplasty, the time to restore skin integrity, the duration of inpatient treatment, the number of infectious complications, and mortality are reduced [16,17].

Early surgical necrectomy is very traumatic and can be accompanied by major blood loss. Bleeding loss consists of at least 250-300 ml within 10% of the wound surface [2]. According to other data, early excision of dead tissue in an area of 100 cm² leads to a loss of 76 ml of blood and the removal of granules in the same area - 64 ml. [8,9, 10].

It should also be borne in mind that autodermoplasty surgery involves the formation of common "donor" wound surfaces, which are often equivalent to surface burns. Blood loss and pain impulses put this operation in a special place, given the surgical risk associated with an increase in the area of skin lost. [11, 14, 15]. Thus, adequately performed local hemostatic therapy during surgery prevents blood loss and thus improves the outcome of treatment of this contingent of patients.[12,13].

The aim of the research. Improving the results of early necrectomy using autodermoplasty in burn patients using a local hemostatic agent "Heprocel".

Materials and methods. The work is based on the analysis of the results of treatment of 35 victims (37 women and 68 men) aged 18 to 75 years treated in the Department of Commustology of the Samarkand branch of the Republican Scientific Center for Emergency Care. the mean age of the patients was 39 years. In most of the observations, the cause of the injury was a flame, burning with boiling water, and contact burns were also observed.

In patients, the total area of injury ranged from 10 to 40% of the body surface (mainly burns of the extremities, as well as chest, neck and face), and deep burns of grade III B- IV accounted for 10%.

All patients underwent necrectomy into healthy tissue with simultaneous capillary bleeding along with autodermoplasty. Hemostasis was performed with hemostatic powder obtained from cellulose products with the drug "Heprocel". The drug was applied 10 mg of powder once a day on the surface of the wound for 3 days.

The clinical evaluation included the following criteria: quantity and nature of discharge; bleeding wounds; time of epithelialization of donor sites, transplanted autodermotransplants; completeness of epithelialization; severity of wound pain.

Surgical interventions in 105 patients with deep burns included the use of

a hemostatic drug to stop necrotic skin and subcutaneous structures after excision.

Results. Our studies have shown that early surgical necrectomy and removal of skin from donor areas is performed after blood loss (6-10 ml of blood per 100 cm² area) and the application of hemostatic powder "Heprocil". When the wound was closed, the donor's autodermotransplants showed good adhesion to the subcutaneous wound. In the picture, patient F. At the age of 42, his pictures were shown. II- IIIAB grade burns of neck, face, both shoulders and arms (total surface area was 60%). necrectomy was performed 8-9 days after the burn.

The next day, the examination did not reveal any graft necrosis in the skin. The donor wound is also clean and shows no signs of infection or pain.

On the 3rd day after surgery, the patients showed that the skin autodermotransplants adhered well to the skin, the positive dynamics of treatment were pointed out, no necrosis was detected in the wound. There are no signs of inflammation where the donor skin is located.

The best thing about the 7th day after the skin transplant is that the skin adhesion is almost flat, linear, with no signs of redness or infiltration. The skin is soft, elastic, light pink in color, there were no signs of infection. The donor site was completely epithelialized, with a thin elastic scar developed without signs of hypertrophy.

On day 12, autodermotransplants of the skin were performed with complete adhesion, complete recovery without complications.



Patient F. 42 years old. Necrectomy hemostatic powder Heprocil application and autodermoplasty



А **В**
Fig. 1. Figure A - A result of local use of the hemostatic drug "Heprocil". Figure B - Removal of skin from the foot using a DPE-40 dermatome

Thus, the use of hemostatic "Heprocil" powder form after necrectomy, using autodermoplasty in all cases, with the help of complete healing of donor sites in patients on day 7 and complete recovery of the defect within 12 days after surgery.

Conclusion. 1. The use of Heprocil during autodermoplasty after early necrectomy ensures complete hemostasis and reduction of wound pain. 2. Topical application of the drug heprocil hemostatic after necrectomy to the wound provides hemostasis, adhesion, rapid and complete healing of the skin during autodermoplasty.

Reference list:

1. Абдуллаев Н.Х., Каримов Х.Л., Умарова Т.Ю. вабошк. Функционал ва клиник лаборатория таххиси бўйича текшириш усуллари / Тошкент, Абу Али ибн Синонашриёти, 2002. – 286б.
2. Алексеев А.А., Крутиков М.Г., Шлык И.В. и др. Диагностика и лечение ожогового шока: клинические рекомендации. Общероссийская общественная организация «Объединение комбустиологов «Мир без ожогов». Москва, 2014. – 17с.
3. Баркаган З.С., Момот А.П., Диагностика и контролируемая терапия нарушений гемостаза. М.: Ньюдиамед: 2001; 258.
4. Березенко Е.А. Исследование системы гемостаза у пациентов с ожоговой травмой // Скорая медицинская помощь. Санкт-Петербург (20-22 июня), 2006. – №3. – Т.7. – С. 44-45.
5. Жилинский Е.В., Цвирко В.Н. ДВС-синдром при ожоговой болезни. // Материалы конф. смежд. участием «Современные аспекты в лечении термических поражений и ран различной этиологии». К 70-летию комбустиологической службы Республики Беларусь и 50-летию Республиканского ожогового центра. – Минск, 2018. – с. 60-61.

6. Исмаилов Б.А., Садыков Р.А. Эффективность гемостатического импланта Гепроцел при паренхиматозном кровотечении из печени в эксперименте // Хирургия Узбекистана, 2018. - №3(79). –с.13-14.
7. Крылов К.М., Шлык И.В., Пивоварова Л.П., Орлова О.В. / Ожоговый шок. Патогенез и лечение шока различной этиологии. Руководство для врачей. Санкт-Петербург, 2010. –с.320-360.
8. Лычев В.Г. Диагностика и лечение диссеминированного внутрисосудистого свертывания крови. -Н. Новгород: Мед.кн.-НГМА, 1998. —188с.
9. Поплавская О.Г., Шипаков В.Е., Алексеев Д.В. Исследование системы гемостаза у больных со ожоговой болезнью // Сибирский консилиум. –2008. –№ 2. –С.58-59.
10. Преснякова М.В., Сидоркин В.Г., Сидоркина А.Н. и др. Дисбаланс системы гемостаза – основа развития ДВС-синдрома в острый период ожоговой болезни // Сб. научных трудов II Съезда комбустиологов России «Мир без ожогов», Москва (2–5 июня), 2008. –с.67-68.
11. Edwards-Jones V., Dawson M.M., Childs C. A survey into toxic shock syndrome (TSS) in UK burns units. Burns 2000 Jun; 26(4):323-33.
12. Rosenkranz K.M., Sheridan R. Management of the burned trauma patient: balancing conflicting priorities // Burns. 2002; 28(7):665-9.
13. Summer G.J., Puntillo K.A., Miaskowski C. et al. Burn injury pain: the continuing challenge // J Pain. 2007; 8(7):533-48.
14. Holmes J.H.T. Critical issues in burn care // J Burn Care Res. 2008; 29(6 Suppl 2):S180-7.
15. Ferreira L.M., Hochman B., Barbosa M.V. Experimental models in research // Acta Cir Bras. 2005; 20(Suppl 2):28-34.
16. Mesquita C.J.G., Leite J.A.D., Fachine F.V. et al. Effect of fimmiquimod on partial-thickness burns // Burns. 2010; 36(1):97-108.
17. Lacerda L., Oliveira A.F., Gragnani A. et al. Estudo epidemiológico da Unidade de Tratamento de Queimaduras da Universidade Federal de São Paulo // Rev Bras Queimaduras. 2010; 9(3):82-8.
18. Wasiak J., Cleland H., Campbell F. Dressings for superficial and partial thickness burns // Cochrane Database Syst Rev. 2008(4):CD002106.