

ultrasound to target the portal vein, the collateral vessels in BCS can be used to create a roadmap to facilitate targeting the portal vein. Importantly, long-term anti-coagulation is needed in these patients to prevent Budd-Chiari recurrence and DIPS occlusion. Therefore, in our article, the enrolled patients treated and managed with US-guided DIPS which proved that is safe and effective alternative technique in patients with BCS, with significant clinical improvement and low risk of complications. DIPS can be used as a bridge to liver transplantation for patients with BCS, who are not suitable for standard TIPS procedure.

REFERENCES

1. Budd-Chiari syndrome: a review by an expert panel / H. L. A. Janssen [et al.] // Journal of Hepatology. 2003. Vol. 38, № 3. P. 364–371.
2. Menon, K. V. N. The Budd-Chiari syndrome / K. V. N. Menon, V. Shah, P. S. Kamath // The New England Journal of Medicine. 2004. Vol. 350, № 6, P. 578–585.
3. Petersen, B. Intravascular ultrasound-guided direct intrahepatic portacaval shunt: Midterm follow-up / B. Petersen, C. Binkert // Journal of Vascular and Interventional Radiology. 2004. Vol. 15, № 9. P. 927–938.
4. Hatzidakis, A. Ultrasound-guided direct intrahepatic portosystemic shunt in patients with Budd-Chiari syndrome: Short- and long-term results / A. Hatzidakis, N. Galanakis, E. Kehagias // Interventional Medicine Applied Science. 2017. Vol. 9, № 2. P. 86–93.

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THE STRUCTURE OF LOCAL DEEP BURNS AND THE EFFECTIVENESS OF PERFORMED SURGICAL TREATMENT IN ADULT PATIENTS

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Introduction

Burns are common injuries with significant morbidity and mortality. Early excision of necrotic tissue and grafting are standard maintenance for decades. Since the mid-1970s, most studies have shown that removal of necrotic scab with simultaneous plastic closure of burn wounds up to 7–9 days after injury is associated with decreased blood loss, infections, hospital stay length and mortality [2]. Burns are damage to body tissues resulting from local action of high temperatures, chemicals, electric current or ionizing radiation. Etiologically classified into thermal, chemical, electrical and beam burns. According to the depth of the lesion there are 5 degrees, which are Ist degree is a superficial skin lesion, characterized by redness and edema. IInd degree — deeper skin lesions with the formation of blisters filled with light yellow exudate [2]. IIIrd A degree — necrosis of the surface layers of the skin with the preservation of hair follicles, sweat and sebaceous glands. IIIrd B degree - necrosis of the entire thickness of the skin. IVth degree — necrosis of the skin and deeper underlying tissues. Burns I, II and IIIA degrees are classified as superficial, the skin is restored on their own [5]. Burns of IIIB and IV degrees are known as deep burn, they usually require surgical treatment. When determining the severity of burns, in addition to depth, the size of the affected area is more important [2]. The area is determined according to the rule of the palm (considered that the palm of an adult is 1 % of the entire surface of the skin) or according to the rule of «nines» (according to Wallace's rule, the area of individual parts of the body is a multiple of or equal to 9 % of the total surface of the body). According to rule of «nines», the surface of the head and neck is 9 %, the upper limb is 9 %, the lower limb is 18 % (thigh is 9 %, the lower leg and foot is 9 %), the back surface of the

trunk is 18 %, the front surface of the trunk — 18 %, the perineum — 1 % of the total surface of the body [4]. An indicator of the severity of a burn, taking into account the depth and area of the lesion in children and adult patients of working age, is the Frank index, according to which 1 % of the area of a superficial burn is equal to 1 conventional unit, and 1 % of the area of a deep burn is equal to 3 conventional units [1]. Thermal burns result from flames, hot metals, burning gases or steams, boiling water, steam, radiant energy [2].

Goal

To determine the structure of victims with local deep burns and the effectiveness of performed surgical treatment among patients treated in 2019 in the burn department of the Gomel City Clinical Hospital № 1.

Material and Methods of research

Patients with a mean age of 54 years; 61,6 % men, 38,4 % women; 70 % urban residents, 30 % rural residents. An analysis of modern literature data from specialized manuals and journals was also performed.

The results of the research and their discussion

Pathogenetically deep burns are characterized by the occurrence of inflammation and necrosis of the affected tissues [5]. The severity of thermal burn injuries depends on the level of temperature, duration of exposure, and also on the area of injury [3]. Prevention of the development of burn toxemia with the greatest effect can be achieved by early necrectomy of the burn eschar [5]. In this period, it is customary to perform necrectomy with single-stage autodermplasty. When this operation is performed within 7–9 days, necrectomy is considered early, the likelihood of infectious complications after this surgical intervention is much lower than with necrectomy performed at a later date. If there is doubt about the radicalness of the performed necrectomy or the presence of purulent inflammation in the wounds, delayed skin grafting of granulating wounds is performed within 5–12 days after the necrectomy. In the case of delayed skin grafting, skin grafting is combined with ultrasonic debridement.

In 2019, the total number of patients hospitalized in the burn unit was 932 people. 52,04 % of patients were victims with burns of various etiology, depth and area. Among this group, 298 (61,44 %) patients were adults, 187 (38,56 %) patients were children. A significant part of adult patients (20,13 %) were victims with local deep burns requiring surgical treatment. Among this group, the largest number were victims with thermal flame burns — 31 (51,67 %) patients, thermal burns with boiling water — 19 (31,67 %) patients, thermal contact burns — 5 (8,33 %) patients, chemical burns — 4 (6,67 %) patients, electrical burns — 1 (1,67 %) patient.

The first operation was performed within 1 to 21 days from the moment of hospitalization, the duration of the intervention depended on the severity of the burn injury. Primary operations were performed, such as early necroectomy with simultaneous autodermplasty — 27 (45 %) operations, necroectomy with simultaneous autodermplasty — 12 (20 %) and ultrasound treatment with single-stage autodermplasty — 21 (35 %). In 30 % reoperation has been done. This happened because of infectious complications and metabolic disorders in patients with chronic diseases.

Conclusion

1. Most of the hospitalized patients with defects of integumentary tissues of various etiologies were victims with burn injuries (52.04 %), which indicates a high level of injuries among patients of various age groups.

2. A significant proportion of adult patients with local deep burns were those with thermal flame burns (51.67 %), which is explained by the high temperature of the flame, leading to deep burns.

3. 45 % of all primary operations are early necroectomy with simultaneous autodermplasty, which is explained by the high efficiency of this method.

4. 30 % of adult patients with local deep burns required re-skin grafting, which can be explained by infectious complications and metabolic disorders in patients with chronic diseases.

REFERENCES

1. Uptodate.com. 2022. UpToDate. [Online] Available at: <<https://www.uptodate.com/contents/treatment-of-deep-burns>> [Accessed 18 March 2022].
2. *Khadjibayev, A. M., U., 2022. Surgical Treatment of Deep Burns.* [online] PubMed Central (PMC). Available at: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3188164/>> [Accessed 19 March 2022].
3. *Gacto-Sanchez, P., 2022. Surgical treatment and management of the severely burn patient: Review and update.* [Online] Available at: <<http://DOI: 10.1016/j.medic.2017.02.015>> [Accessed 18 March 2022].
4. *Alekseev, A. A. Active surgical methods of treatment of deep burns at patients of elderly and senile age / A. A. Alekseev, N. B. Malutina, Y. I. Turnikov // Annals of Surgery. 2002. № 4. P. 58–62.*
5. *Features of treatment of deep burns in children of early age / L. M. Dokunina [et al.] // Proceedings First Congress Russian Burns Specialists Moscow. 2005. P. 161–162.*

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OVERVIEW OF ANGIOGRAPHIC COMPLICATIONS AND STANDARD METHODS FOR THEIR REDUCTION

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Introduction

Angiography is a type of X-ray imaging that visualizes blood flow in the body by evaluating the internal lumen of the blood vessels (arteries, veins and lymph) by introducing radiopaque substances into their lumen. It helps in detecting the structure, location, dilation, narrowing of vessels and even complete cessation of blood flow to the vessel [1]. It is a high-tech procedure that is performed by experienced doctors. A referral for examination is issued by several medical specialists like cardiologists, vascular surgeons, neurologists and other specialist. Angiography assists as a valuable diagnostic method even though there is an associated risk of complications [2]. Different types of angiography is performed according to the varied topography of vessels. Therefore, we have angiography of the brain for investigating cerebral vessels (cerebral angiography), angiography of coronary vessels for investigating coronary arteries (coronary angiography), angiography of great vessels (aortography), angiography of veins and arteries of upper and lower extremities and many more. All over the globe, coronary angiography remains as a gold standard investigation to study arteries of the heart [1]. The angiographic procedure describes physician injecting a liquid dye through a thin, flexible catheter and moving the catheter to desired vessel by access point like either arm or groin [4]. The dye makes blood flow inside a vessel visible on X-ray. This dye is then subsequently eliminated from the body through kidneys on urinating. Some of the main indications for angiography includes vascular disorders, atherosclerosis, thrombosis, aneurysms, vasoconstriction, ischemic stroke, vascular malformations and tumors. It is also indicated for monitoring the effectiveness of surgery and drug therapy in order to evaluate the results of treatment [2]. Angiography procedure is contraindicated at acute inflammation and infections, blood clotting disorders, allergic reactions, pregnancy, renal and hepatic insufficiency, cardiac failure, venereal diseases and mental illnesses [4]. Complications of angiography ranges from minor to major that results due to inadequate preparations before the examination or due to patients individual medical conditions specifying tolerance levels [3]. Here, with the results