Pressure Ulcer Stages and Care

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**Background**

Pressure sores are a violation of the integrity of the skin due to the damage to a separate area caused by prolonged compression. Soft tissue death often occurs in bed patients and, without treatment, spreads deep to the bones and tendons, forming cavity pockets in the muscle layer. Effective treatment of pressure ulcers depends on the stage and depth of soft tissue damage. However, it is much easier to prevent the development of pathology in bed-ridden patients than to eliminate necrosis. Pressure ulcer prevention methods can include:

1. Change position frequently
2. Use a pressure relief pad above the bone protrusion
3. The most important thing is the mattress for pressure ulcer patients.
4. Education for nurses, doctors and family members about the importance of frequent movements to prevent skin damage (Mervis & Phillips, 2019).

**Stage one pressure ulcer**

Stage one, the pressure ulcer is characterized by erythema, intact skin that does not fade when pressed. The skin may look red and feel warm when touched. People with darker skin, discoloration, heat, swelling, induration, or hardness may be indicators of the formation of a single pressure ulcer in the stage. The recovery time for the first pressure ulcer is typically 3-4 days if treatment is started immediately. If the pressure is not removed from the area, one pressure ulcer may progress to two ulcers in step one. (Mervis & Phillips, 2019).

If Erythema of the vein is present in certain areas of the skin turn red and bluish, the skin does not change after application of pressure, the local temperature is normal or slightly reduced. Intact skin integrity. Softening and arterial bleeding under the skin are initially bright red and the local temperature is slightly elevated. These differences are very important in the diagnosis of mucous membranes in the early stages of development and in their timely treatment.

**Stage 2**

Primary damage to skin integrity due to developing enema: appearance of maceration (thinner areas of skin) in hyperaemia, peeling and small bubbles. From this stage it is possible to join the infection and create purulent foci.

**Stage3**

Distribution of the necrotic process into deeper layers before muscle damage, clear wetting features and release of serous fluid and blistering from the wound.

**Stage 4**

Deep cavity formation with tendon and bone effects. Depending on the pressure force, mucosa with different stages of tissue necrosis may develop in different parts of the body .

**Treatment guide**

Measured ultraviolet radiation and an electrostatic shower can be used if the patient is in hospital. Hyperaemic areas are treated twice or three times a day with 2% camphor alcohol;

1% salicylic alcohol; 0.5% ammonia; 1-2% tannin alcohol solution and Argo creme containing silver.

Treatment of tier 2 and open wounds at home. Other than microdata on the skin and maceration, the main purpose is to prevent moisturizing. For this use: Chlorhexidine antiseptics with proper dressing.

Treatment-Bedding-Stages 3 and 4

The only effective treatment tactic is the partial surgical excision of necrotic tissue with subsequent topical anti-inflammatory wound healing and co-treatment including the intravenous infusion of 0.5% metronidazole as dexamethasone, hydrocortisone and immunostimulants.

**Mucosal site treatment features**

The treatment outcome is increased if these treatment rules are followed, considering the localization of the necrotic process. There are wedge-shaped pillows on the heel area, skin protection with a colloidal bandage for 2-5 days. Pressure ulcers on the buttocks - Treatment and prevention include the use of diapers, special gluteal wheels, and regular replacement. Treatment prevention massage in the absence of signs of necrosis can be deeper because there is a fairly pronounced muscle layer in the area. Pressure ulcers on coccidia - the minimal muscle layer causes the rapid spread of necrosis to bone tissue, so this area is treated primarily with antiseptics. (Edsberg, Black, Goldberg,McNichol, Moore & Sieggreen,2016).

**Home treatment**

Passive drainage is permitted at home. To do this, the wound is filled with sterile wipes, heavily moistened with the above antiseptic solutions and anti-inflammatory ointments. In extreme cases, you can use bandages with a treated, non-breaking edge. However, such tactics will not heal purulent deep wounds, but only prevent the growth of necrosis into the tissues.

**Type of mattress for pressure ulcers**

Pressure ulcers are one of the most serious dangers that threaten a bed patient, and their prevention is a very important part of caring for sedentary patients. High-quality anti-decubitus mattress can solve this problem. Such a mattress not only prevents the occurrence of pressure sores, reducing pressure on certain areas of the body and allowing blood to circulate freely in the capillaries, it helps muscles to relax and prevents pain and discomfort, and this has a positive effect on the quality of sleep and, ultimately, on the general condition of the person. How to choose the anti-decubitus mattress, which will perform its functions fully?

**Dynamic anti-decubitus mattresses** have a completely different design. They consist of hollow sections into which air is forced through a special compressor. The pressure in the cells is constantly changing, due to which there is a soft massage effect. Dynamic mattresses are suitable for patients who cannot get out of bed and move, they are used not only for the prevention of pressure sores, but also in their complex treatment. Such mattresses, depending on the section design, are cellular and tubular. (Ribble, Newkirk, Hood, Zerhusen, Dixon & Wildman, 2017).

**Cellular mattress** consists of many small cells that communicate with each other and look like honeycombs. They are filled with air, which pumps the compressor, and, puffing and blowing, provide a massage effect. Cellular mattresses are a good prevention of pressure sores, but they are also used to alleviate the condition of patients who have already developed mild to moderate sores. However, cellular mattresses have a limitation - they are not intended for patients weighing more than 120 kilograms. (Beeckman, Serraes, Anrys, Van Tiggelen, Van Hecke& Verhaeghe, 2019). The tubular mattress consists of a series of transverse cylinders. Each cylinder has the shape of a cylinder. The compressor drives the air, alternately inflating the cylinders, and this provides a more intense massage effect. The tubular anti-decubitus mattress is suitable for patients whose weight exceeds 120 kilograms, and those who already have bedsores of moderate and severe degree. The cost of mattress ranging from $2000-$20,000.

**Conclusion**

One of the most unpleasant complications of almost any disease associated with limited human mobility is pressure sores. Modern medicine under this concept refers to the process of necrosis of soft tissues that occurs due to constant pressure on certain parts of the body. Such an impact on skin areas provokes disturbances in the blood circulation process, as well as dysfunction of the nervous trophism and the influence of the nervous system on the structural and chemical organization of tissues and organs. Pressure ulcers are divided in 4 stages and treatment depends on the stage of ulcer.

References

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