Phase III Bed Sore Treated with MEBO in Combination with Musculocutaneous Flap Transposition

Mu Xiaoxin

The 1st People’s Hospital, Huangyan, Zhejiang Province 318020

[Abstract] Objective: To observe the curative effect of MEBO in combination with local musculocutaneous flap transposition in treating Phase III bed sore. Method: MEBO was applied on the wound 2 times a day. After one week, musculocutaneous flap transposition was performed when the wound became fresh and when the granulation tissue appeared. Results: All of the 8 cases were healed with first intention. Six of them were followed up for 2 to 24 months. No recurrence happened. Conclusion: For treating Phase III bed sore, applying MEBO for about one week and then treating the bedsore with MEBO in combination with musculocutaneous flap transposition could evidently shorten the course of the disease.

[Key words] Phase III bed sore; Musculocutaneous flap; MEBO;

The treatment of bed sore especially phase III bed sore that extends to the bone tissue has ever been a difficult issue in clinic. The traditional local change of dressing therapy costs time and energy and the course of disease is long. It's difficult to be healed with first intention. Consulting relative references [1], from January 1996 to May 2000, the author has used MEBO (Moist Exposed Burn Ointment) in combination with musculocutaneous flap transposition method treating 8 cases of bed sore and the efficacy is satisfactory. The details are as follows:

First: Clinical Data

Male: 7 cases, Female: 1 case; Age: 35~71 years old; Average age: 58 years old. Causes of bed sore: 4 cases of high paraplegia, 2 cases of coma because of traumatic brain injury, and 2 cases of brain block sequela. Positions of bed sore: 2 cases at the sacroiliac complicated with double greater trochanter of femur, 3 cases at the sacroiliac complicated with half greater trochanter of femur, 3 cases at the sacroiliac. The focus of infection area: 24 cm × 16 cm × 4 cm at most and 6 cm × 4 cm × 2 cm at least. All these were phase III bed sores. The course of diseases was from 1 month to 3 months separately.

Second: Treatment Method and Result

After the patients entered the hospital, bedsore germiculture in combination with drug sensitive test was performed. Sensitive antibiotic was applied systematically to the patients and nutrition support was strengthened by intravenous transfusion of plasma and high-energy in combination with enteral nutrition. After the wound was totally debrided, it was washed with 3% H₂O₂ and then rinsed with sterile saline and wiped
with dry gauze. MEBO gauze was filled into the wound 2 times a day and the patients were turned over once every 2 hours. After one week, musculocutaneous flap transposition was performed when the wound became fresh and when the granulation tissue appeared. The residual necrotic tissue at the burn wound and the surrounding hard and canous scar tissues were thoroughly removed in the operation. At the same time, the sacral bone and the greater trochanter of femur and the periostitis tissues were removed, too. Advanced skin flap of double gluteus maximus or rotation flap of the superior gluteus maximus was adopted to the bedsore in the sacroiliac region. Rotation flaps of the inferior gluteus maximus were applied to the greater trochanter of femur. Skin flap with the function of drainage was placed beneath the transplanted skin flap for 1~2 days after operation and the stitches were taken out after 12 days.

Eight cases of bedsore were all healed with first intension. The treatment course was 19~45 days and 6 of them were followed up for 2 to 24 months. No recurrence happened.

**Third: Discussion**

1) The reason of bed sore formation is: the local tissue is oppressed for a very long period and this will lead it to necrosis because of blood and oxygen shortage. At the same time, the necrotic tissue will supply favorable condition for the invasion and regeneration of germs and the infection will aggravate the local blood and oxygen shortage until necrosis of the tissue occurs. Vicious circle will occur and the infection will extend to the subcutaneous, muscle layer and even the facies ossea and ulcers that are difficult to recover will form. So bedsores are common complications of chronic and long period of lay-up. The causes of bedsores are: long period of being sick, systemic or local nutrition def iciency because of slow digestion and deficiency of intake, infection, oppression suffered by catapophysis, lack of nursing and so on.

2) MEBO is a kind of soft ointment with frame structure. The amoorcorn tree bark, beeswax and benne oil included in MEBO have the ability of detoxification, and so it can promote the growth of new tissues and retrieve vitality with slough tissues discharged. It has the ability of promoting blood circulation to remove blood stasis and so can improve the microcirculation at the bedsore and promote the local blood stream and increase the immunity of local tissues. In the end, the parbiosis tissues around the bedsore will turn into healthy tissues [2]. However, the traditional change of wound dressing will prolong the course of disease and the growth of granulation tissue will be slow. All cases were treated using MEBO and it supplied a good condition for musculocutaneous flap reparation.
3) Musculocutaneous flap has relatively strong anti-infection ability. Gluteus maximus is the largest rhomboid muscle at haunch. The main nutrient blood vessels of gluteus maximus are the superior gluteal artery and inferior gluteal artery, which belong to double blood vessel type. Many kinds of shapes of musculocutaneous flap can be formed to repair the bedsore at the sacroiliac, ischiadic tuberosity and the greater trochanter of femur. For example, the superior musculocutaneous flap of gluteus maximus and the V-Y advanced skin flap at double sides can repair the bedsore at the sacrococcygeal region. And the inferior musculocutaneous flap can repair the bedsore at the greater trochanter of femur and the ischiadic tuberosity region [3]. The nutrient blood vessels should be protected when musculocutaneous flap transposition was performed. For non-paralysis patients, the superior part of gluteus maximus or the inferior musculocutaneous flaps are taken to assure the extending function of the gluteus maximus to maintain the stability of the articulation of hip.

4) Using MEBO in combination with musculocutaneous flap transposition to treat bed sore will shorten the course of disease and will release the pain suffered by the sick. All the cases were healed with first intension. After recovery, there was no appearance change and the skin was flexible and there was no recurrence after recovery. Change of wound dressing and operation don’t need special appliance and equipment and it’s worthy of popularizing.

References

