Experience with MEBO Gauze
In Treating 84 Cases of Ear Burn

Zang Hua

【Abstract】Objective: To observe the curative efficacy of MEBO gauze in treating ear burn. Method: Ear burns were treated with MEBO gauze. For those complicated by suppurative perichondritis of auricle, MEBO was applied into the cavity and MEBO gauze was used for drainage. Result: All the 84 cases of ear burns healed. Among them, 4 cases were complicated with suppurative perichondritis of auricle, 2 cases had small defects on the auriculae, 2 cases had superficial scars left after healing and none had serious atrophy or deformity of auricle. Conclusion: MEBO gauze is very efficacious in treating ear burn. It is pain free and easy to apply.

【Key words】MEBO Gauze; Ear burn.

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The exposed and projecting auricular conchas are easy to be injured. Eighty-four cases of ear burns had been treated in our hospital by using MEBO gauze from October 1999 to October 2002 and the therapeutic effects were satisfactory.

I Clinical Data

All the 84 cases of ear burns were complicated with different degrees of burn wound in the face or other parts. Among them, 62 cases were male and 22 were female. The ages of this group were 2-68. There were 34 cases with both ears burned (9 cases suffering from the same degree of burns), while 50 cases with single ear burned. To sum up, among the total 118 ears, 58 ears suffered from superficial second degree burn, 48 ears suffered from deep second degree burn and 12 ears from third degree burn. Four (all of the cases with single ear burned) of the 84 cases suffered from ear burn complicated by suppurative perichondritis of auricle. Seventy-four cases were hospitalized and treated in 24 hours post injured and 1 case of ear burn complicated by suppurative perichondritis of auricle was transferred to our hospital after 35 days post injured.

II Therapeutic Method

1 After hospitalization, simple debriedement was immediately applied and foreign body and scaling sloughs were removed then. The vesicles were punctured, and then the vesicular fluid was drained and the vesicular peel was remained as most as possible. The water on wounds was absorbed totally with aseptic dry gauze, and MEBO gauze with the same size as the wounds was flatly applied to the wounds. The wound was then slightly bound up with bandages and dressings. Dressings were changed once a day or twice a day if the amount of
wound secretion was much. The method of making MEBO gauze: Squeeze MEBO into an aseptic vessel, dissolve it with waterproof, and then submerge the pre-folded aseptic gauze into the dissolved MEBO liquid to make ready-for-use medical gauze.

2 If external ears suffered from swelling pain, ache and compression pain, the wound was immediately incised and drained before obvious pus accumulation occurred. Comparatively complete debridedement was applied in the wounds to remove secretion and necrotic cartilage. MEBO was sucked with pinhead-free injector and then was injected into wound cavities till to the basal parts, and then the wound was drained with MEBO gauze. Dressing was changed 1~2 times a day. When wound dressing was changed, the liquefied matter was gently removed with sterilized cotton sticks and disinfectant was forbidden to be used in the wounds.

III Curative Effect

Eighty-four cases of ear burns were treated with MEBO gauze. Among them, 58 ears of superficial second degree burn wounds healed in 7-12 days, 48 ears of deep second degree in 15-32 days and 12 ears of third degree in 37-60 days. Among the four cases complicated with suppurative perichondritis of auricle, 2 cases had small defects on the auriculae, 2 cases remained superficial scars and none of them had serious atrophy or deformity of auricle.

VI Typical Cases:

Case I: Wang ×; Male, 6 year-old; Burned by gas flame in the face, neck and both ears; Hospitalized in half an hour post injured. When he was hospitalized, the right auricle was flare while most of his left auricle was exfoliative with pale wound basis. After hospitalization, both ears were debrided. At first, MEBT was applied. Two hours later, MEBO gauze was applied because the sick child was dysphoria and unwilling to cooperate with doctors when MEBO was applied to the wound. On the next day, leptodermous vesicles appeared on the right ear. The vesicles were punctured and the vesicular fluid was drained. Dressing was changed once a day. The wound healed in one week. The left ear was seriously swollen and the wound was accompanied with stigmatosis after 5 days. Thorough debridedement was applied every day and also MEBO gauze. The dressing was changed twice a day if the amount of secretion on the wounds was much. The wound healed in 21 days. The boy was followed up for half a year and no scab formed on the wound.

Case 2: Li ××; Male; 36 year-old; Burned by electric arc in the face, right ear, neck and right upper extremity. After 25-day’s treatment in local hospital, he suffered from violent pain in the right ear and also accompanied with fever, so the patient was transferred into our hospital. The referral recorded: after 25-day’s treatment in local hospital, external ear of the patient suffered from obvious swollen and pain. The external ear was incised and pus was drained. Antibiotic was applied into the cut. However, the pain of the ear worsened and accompanied with shiver and fever. The
patient was transferred to our hospital 35 days after burned. When the patient was admitted, the wounds in face and neck healed. For the wound at the upper extremity there remained 1% new granulation and the right ear was abscess with obvious compression pain and the sense of undulatory and the nearby scalp was also accompanied with edema. T 39.5℃ WBC 12.9×10^12 N 0.89 L 0.11. After hospitalization, the cut was immediately widened at the helicine edge and it was debrided thoroughly and foreign body and necrotic auricular cartilage were removed. MEBO was sucked with pinhead-free injector and then was injected into wound cavities till to the basal parts, and then the wounds was drained with MEBO gauze. Dressing was changed twice a day. Complete debridement was applied whenever the dressing was changed. At the same time, general antibiotic was coordinatively used for intervenous drop infusion. The patient stopped having a fever 4 days later. The swelling and pain were notably relieved and the wound cavity was reduced after 10 days. WBC 6.9×10^12 N 0.70 L 0.30. When the wound had only little liquefied matter, wound dressing was changed once a day. The defections of right ear healed after 60 days post injured. MEBO Scar Reducer was continuously used for 1 year and the deformity did not further aggravate.

V Discussion

During our daily work, we find that there is disadvantage using traditional MEBT for treating ear burn, especially when the sick children are unwilling to cooperate for drug application, which seriously impacts the curative effect of MEBO because the ointment on the wounds is easy to be wiped off by external objects. Furthermore, because ear burn is usually accompanied with more serious burn wounds in other parts, such as eye burn or respiratory tracts burn, the treatment and nursing to the ears burn is usually ignored by medical staff and relatives of the patients. The ear burn was treated with MEBO gauze in our hospital that ideally prevented perichondritis of auricle without the prohibitition of medical conditions and had the advantages of convenient operation and easy controlling. Moreover, treated with this therapy, the wounds could heal soon with little scar. The skin and subcutaneous tissue of external ear are thin, so the ear burn frequently interfere auricular cartilage. Besides, it was near hair and was connected with external auditory canals, and ears themselves were too irregular and rough to be cleaned. Consequently, ear burn was usually complicated with infections and suppurative perichondritis of auricle post injured. The author found that MEBO has the following characteristics in treating suppurative perichondritis of auricle: 1. Ideal analgesic effect. Disinfectant wasn’t needed and the gauze wouldn’t stick to the wounds when dressing was changed. Resolutely, it was easy for the patients to accept because of the slight pain. 2. Generally, general antibiotic was used instead of massive-dose broad-spectrum and high-grade antibiotic. This reduced the economic burdens of the patients. 3. To some extent, it could reduce the pain when the patients receive the excisions of necrotic cartilage under systemic anesthesia, and the rate of deformity healing. When application, please note: 1. If the patients have burn wounds in auricular conchas but not in external auditory canals, put dry cotton ball at the opening of external auditory canals and timely change wet cotton to prevent the infections of external auditory canals caused by flow-in secretion. 2. When external ear suffers
from swelling pain, ache and compression pain, firmly diagnose it as supplicative perichondritis of auricle. It should be incised for drainage at the earlier stage and the cut should be large enough. 3. The patients with ear burn had better use small pillows, nursing of the ear should be strengthened, try to keep heads in elevated position to benefit venous return and swelling regression.

References


【Brief Introduction of the Author】
Zang Hua (1971—), female (the Han nationality), from Dafeng, Jiangsu Province, graduated from Zhejiang Medical College, working for the Burn Wounds Department, attending physician