Clinical experience with MEBO in treating 50 cases of vesicular dermatitis solaris

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[Abstract] **Purpose:** Observe the therapeutic result of treating solar dermatitis with MEBO. **Method:** During 1999 to 2001, treated 50 cases of vesicle type solar dermatitis with MEBO, and observed pain, inflammation, healing duration, and the escharation of the lesion. **Results:** 5 to 10 minutes after applied MEBO on the lesion, pain basically vanished. Healing duration minimum 6 days and maximum 10 days, without any infection and escharation. **Conclusion:** MEBO gains well therapeutic results in treating vesicle type solar dermatitis. [Key Words] MEBO; Vesicle type solar dermatitis; Therapeutic result; [CCL] BFR758, 14BFQ [Document Code] B [Serial Num] 1001-0726(2003)03-0209-02

Solar dermatitis is also named sun burns, which is an acute erythema caused by violate sun exposition, and is vesichel dermal inflammation in severe type. The illness is an acute inflammatory reaction that due to excessive exposure to the moderate-length UV wave with the wave length ranges from 290μm to 320μm in the sun light. Several hours to around ten hours can find diffused erythema on the skin that exposed under the sun light, and can find swelling and vesicle in severe cases, with thermalgia or prickling.[1] MEBO benefits mucous in repairing, and we acquired well therapeutic results in treating solar dermatitis. Reports as follow:

**Clinical Information**

Treat 50 cases of solar dermatitis by MEBO in 1999 to 2001. 41 males, 9 females, age from 12 to 55 years old, average 35 years old. Admission from 2 to 7 hours after injury, average 4 hours. Injured sites are upper limbs and trunks. Lesion area from 5%~15% TBSA, average 8% TBSA.

**Treatment and Result**

Simple debridement after admission, released the blister fluid in low position and retained the blister skin, removed contamination, corrugated and corrupt skin, sterilized the lesion with 1% benzalkonium bromide solution if sever contaminated, dried up the lesion with aseptic gauze then applied MEBO with 1.0mm thickness, changed dressing 4 times a day and must to remove the remained ointment and the exudates before changing till the lesion healed. And notice not to pain or bleed the lesion, not to remain or macerate ointment on the lesion, not to dry the lesion. Proper infusion in case of the lesion is bigger than 10% TBSA, and treat respectively in case of general symptoms occurred.

Five to 10 minutes after applied MEBO on the lesion, thermalgia or prickling vanished, and few pain in the afterward treatment. No infection and no administration of
antibiotics. Lesion healing duration minimum 6 days, maximum 10 days, without escharation, and only two cases of early stage pigmentation.

Experience

1. The skin damages of severe solar dermatitis (turgescent vesicle type) extremely similar to the damage of superficial II° burns, besides the vesicle, it is very sensitive to algesia, the reasons are: (1) after radiation of moderate-length UV light (wave length ranges from 290μm to 320μm) to the skin and cause local tissue damage, produce inflammatory transmitter to stimulate nerve terminals; (2) after skin injured, due to nerve terminals exposure that physical stimulate such as air and dust can easily form the algesic pulse; (3) moderate-length UV ray changes membrane potential on damaged nerve terminals and reduces pain threshold; (4) convulsion of arrector pili after skin injured. Antalgesic feature of MEBO is rapid and lasting, its mechanism relates to the following factors: (1) “The liquid flow circulation” way of MEBO may carry the inflammatory transmitter from profundus site to superficial site and be eliminated; (2) the lipid affinity of MEBO can protect exposed nerve terminals; (3) MEBO effective adjust the change of potential to recover the pain threshold; (4) MEBO possesses atropine-like feature to relax arrector pili[2]; (5) MEBO can moisturize the lesion.

2. MEBO is honeycomb structure, the size of each cell is 19μm that can only hold one bacterium in one cell, thus, limit the bacterial growth and propagation. Matrix of MEBO is not suit for growing bacteria and fungus, even contains some Chinese medical antiseptic ingredients. Research improves that MEBO can change the genetic mode of bacteria that reduce the toxicities.[3] MEBO abounds in nutrients that cells growth need and enhance the rapid repair of the tissue and the cell.

Reference: