MEBO for Treating Idiopathic Gangrene of Scrotum (A Report of 2 Cases)

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[Abstract] Objective: To investigate the efficacy of MEBO in treating idiopathic gangrene of scrotum. Method: MEBO gauze was applied every 8 hours to the lesion area and necrotic tissue was removed timely. Result: One case cured in 2 weeks and another case in 4 weeks. No skin grafting was needed. Conclusion: MEBO is capable of promoting wound healing and has strong effect against Streptococcus and Staphylococcus aureus infections.

[Key words] Idiopathic gangrene of scrotum; MEBO

I Case Data

Case 1: 35 year-old; a peasant. The patient was hospitalized on June 6, 1996 because his scrotum had been flare for 10 days and the scrotal skin had been blackened for 2 days. Ten days before, his scrotum itched because of unknown reason. The patient himself often scratched with hands and irrigated with saline. Eight days later, the whole scrotal skin blackened gradually and violently swelled and pained. The patient underwent accompanied fever and general malaise, but his stool and urine were normal. Examination observation: Penis: normal development; Routine WBC: 12.9×10^9/L, neutrophil: 90%; Lymph: 10%. Bacterial culture at the wound: beta streptococcus. The patient was treated with supporting treatment and intravenous drip of broad-spectrum antibiotics, simultaneously necrotic tissue was removed through operation. Then, MEBO was directly smeared onto the wound and cavity with a thickness of about 2 mm. Caution: guaranteed that the wound was always moist but not macerated or with accumulated ointment. Dressing was changed every 8 hours and the liquefied necrotic tissue of wound and old liquid medicine were removed before every dressing change. At the same time, the wound was protected from the contaminations of stool and urine. After one-week treatment, fresh granulation tissue formed in the wound and after 2 weeks, the wound healed.

Case 2: 38 year-old. The patient was hospitalized on September 13, 1996, because his scrotum had ulcerated with purulent secretion for 10 days. One month before, the patient had the history of watery stool (5 times) and accompanied by nausea without vomiting at that time. On the next day, he underwent fever and general malaise. Besides, his scrotum was flare, swelling, with pain and tender, but his urine was normal. Although he had been treated with CPLX (ciprofloxacin) in local hospital, the swelling of scrotum did not abate. After 20 days, the color of his scrotal skin turned from violet to black and necrosed gradually and ulcerated with purulent secretion. After debridement, the wound was treated with traditional dressing change, but the amount of purulent secretion increased. Then, he transferred to our hospital. Examination observation: Penis: normal;
Scrotum: swelling 10cm×8cm×10cm, with the area of 5cm×6cm skin defect that caused the exposure of the common sheath of testis and spermatic cord, with purulent secretion and small purulent cavities on its surface; Routine WBC: 13.8×10^9/L, neutrophil: 91%; Lymph: 9%. Bacterial culture of scrotal secretion: E. coli. MEBO was smeared onto the wound locally with the same therapeutic method as in case 1. After 10 days, the wound started to liquefy, after 2 weeks, fresh granulation tissue formed on the wound and after 4 weeks, the wound healed. The patient did not receive skin grafting.

II Discussion

**Idiopathic gangrene of scrotum** is a rare disease caused by bacterial infection. The main pathogens are *Streptococcus hemlyticus*, *Staphylococcus aureus*, *Escherichia coli* and *Bucillus proteus* etc. [1]. Scrotal gangrene usually injures the full thickness skin and the serious scrotal gangrene will also affect testes and tunica vaginalis testis to make the testes and common sheath of testis and spermatic cord exposed. The scrotum is located at the medial part of thighs that is close to the anus and meatus urinarius. Besides, the scrotal skin is loose, soft and wrinkled. Consequently, the scrotum is often infected by the bacteria staying on it from the anus and meatus urinarius or the bacterial embolus staying on it carried by blood from other infected part. The traditional therapy is to strengthen local and systemic anti-infection and treat local part with traditional surgical therapy of dressing change. There is still no report about MEBO in treating idiopathic gangrene of scrotum. On the basis of MEBO in treating burn wounds, we treated 2 cases of idiopathic gangrene of scrotum with MEBO. Hereinafter, we analyze its effect in detail. In fact, the wounds of the 2 cases were basically similar to that of third-degree burn wounds. The therapy of MEBO is coordinate with the therapeutic principle of MEBT. The main elements of MEBO are the lactone of Cortex Phellodendri and β-sitosterol that are derivants of triterpenoid [2]. The lactone of Cortex Phellodendri and β-sitosterol, as surface active agents, have hydrophilic gene and oleophylic gene, so they have the functions of wetting, osmosis, emulsification, solubilization and cleaning. MEBO supplies for tissues a growth environment which is moist but not macerated. Its matrixes take hydrolysis, enzymolysis, saponification and acidification with the necrotic tissue of wound to automatically and intactly liquefy and eliminate the necrotic tissue of wound from superficies to interior in order to remove necrotic tissue and promote tissue regeneration. Xu’s Theory believes: the anti-infectious mechanism of MEBO is to destroy the environment for bacterial growth and reproduction. Namely, its internal environment of constant liquefaction and unobstructed drainage discharges a great deal of bacteria out of the wound. Moreover, MEBO also can prevent bacterial reinvasion and wound injury, so as to fundamentally prevent the wound from worsening and deepening caused by the infection of *Streptococcus hemlyticus* and *Staphylococcus aureus*, and finally achieve the healing of wound. Generally, the wound treated with MEBO need not receive skin grafting.

References

1993, 929.