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Study on the Application of Undecylenamide Propyl Betaine and Polyhexamidine in the Incision of Breast Abscess

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Abstract. Objective: To evaluate the curative effect of incision and drainage of breast abscess and postoperative application of undecylen amidopropyl betaine and polyhexamidine (Prandtl liquid dressing and wound gel). Methods: 100 cases of breast abscess, 50 cases of observation group and control group were randomly selected. The observation group was treated with undecyl amido propyl betaine and polyhexamethylene biguanide (Prandtl liquid dressing and wound gel) Drainage patients were dressing change, the control group with saline for dressing, t test was used to compare the incision healing time, the number of dressing, using the $\chi 2$ test to compare the recurrence rate. Results: The incision healed completely in both groups. Compared with the control group, the wound healing time in the observation group was shorter, the dressing frequency was lower and the recurrence rate was lower (all $P < 0.05$). Conclusion: After incision and drainage of patients with breast abscess, dressing with undecylenamide propyl betaine and polyhexamidine (prontosan wound irrigation solution and wound gel) can shorten the wound size after incision and drainage of breast abscess Healing time, reduce the frequency of dressing, while reducing the recurrence rate.

Introduction

Breast abscess is a common disease in lactating women, mostly acute mastitis treatment is not timely or incomplete treatment found [1], mainly due to milk deposition and bacterial invasion, the traditional treatment of breast abscess incision and drainage, but This method patients longer incision healing, dressing more often, and need to endure the pain often caused by dressing, and the recurrence rate is high [2]. In recent years, studies suggest that the formation of bacterial biofilm becomes a major obstacle to the healing of chronic wounds [3]. Once the wound has formed a biofilm, the bacterium has a very strong drug resistance, making the wound prone to long-term non-union in the presence of bacterial biofilm. How to effectively destroy and remove bacterial biofilm and prevent the formation of bacterial biofilm is the focus of treatment of chronic and refractory wounds. In this study, patients who underwent incision and drainage of breast abscesses were randomly assigned to randomized

control with eleven caprolactam betaine and polyhexamidine prontosan wound irrigation solution and wound gel) and saline Experiments have shown that the treatment of patients with breast abscess incision and drainage of undecylenamidopropyl betaine and polyhexamidine (prontosan wound irrigation solution and wound gel) is significant.

Data and Methods

General Information. Selected to our hospital breast abscess patients, a clear diagnosis, a random sample of 100 patients were divided into observation group and control group.

Treatment. Two groups of patients with breast abscess are given abscess incision and drainage.

Control group method: Breast abscess incision and drainage, iodophor disinfection of wounds and the surrounding skin, and then washed repeatedly with saline abscess, sterile gauze drainage and drainage, covering the outer sterile gauze. According to the case of gauze seepage to give regular dressing. Dressing method Ibid.

Observation group method: Breast abscess incision and drainage, iodophor disinfection wounds and the surrounding skin, with undecylenamidopropyl betaine and poly biguanide (prontosan wound irrigation solution) repeated washing abscess, and then use eleven Cocamidopropyl betaine and polyhexamidine (prontosan wound gel) smear wound, aseptic gauze packing drainage, sterile gauze bandage fixed. According to the case of gauze seepage to give regular dressing. Dressing method Ibid.

Observation indicators and evaluation criteria. Two groups of patients were observed wound healing time, dressing change, recurrence rate. Wound healing: The wound is completely closed, no swelling, no exudation, no subcutaneous effusion, color Doppler ultrasound probe without residual fluid. Recurrence rate: After the patient was discharged from hospital, he was asked to check the patients regularly and follow up for 2 years.

Statistical methods. SPSS13.0 statistical software was used for statistical analysis. Meter The amount of data to $x \pm s$, said t-test between groups; the recurrence rate between the two groups using $\chi 2$ test. $P < 0.05$ for the difference was statistically significant.

Results

The wounds of the two groups were all healed, and the incision healed one time. Compared with the control group, the observation group wound healing time shorter, less frequent dressing, the recurrence rate is lower. See the table below:

Group	n	healing time (t)	Dressing frequency
Observation group	50	15.2(±1.85)	8
Control group	50	32.2(±2.15)	20
P	– –	P<0.05	P<0.05
Group	n	recurrence number of cases	recurrence rate
Observation group	50	0	0
Control group	50	5	10%
$\chi 2$ value	– –		
P	– –	0.032	

Discussion

Breast abscess is a common disease in lactating women, mainly in primipara, mostly mastitis treatment is not timely or incomplete treatment, the main cause of the disease is milk deposition and bacterial invasion, once the abscess formation, surgical drainage is effective Treatment [4], but the traditional treatment of patients with long treatment time, frequent dressing, to patients with some pain, causing the patient's fear and psychological burden, and a high recurrence rate. Negative psychological feelings will affect the wound healing [5]. British zoologist Winter [6] The study confirmed that wound healing in wet healing environment faster than the dry environment twice as fast, resulting in wet healing theory, wet healing can promote wound healing. The treatment of wound infection is mainly aimed at the bacteria and the biofilm formed by them. Therefore, in the treatment, debridement, drainage and destruction of the bacterial biofilm should be promptly done in order to reduce the number of bacteria and repair the wound as soon as possible. The traditional dressing cannot keep the wound moist, the wound adhesion caused by pain when dressing, dressing improper manipulation of the wound repeatedly damaged. After the secretion soaked dressings, the pathogen can invade the tissue causing infection, the traditional dressing has no anti-infective effect. Traditional dressing cannot lock exudate, dressing and frequent, resulting in wound healing for a long time. Prandtl liquid dressing can rupture the bacterial coating, dissolve the denatured protein, to prevent and remove bacterial biofilm, which can effectively reduce the risk of wound infection. Clinically, wound dressing is mainly used to improve wound healing rate and reduce wound infection Rate[7]; polyhexanide spectrum bactericidal effect, strong tissue compatibility, and no drug resistance; undecylenamide propyl betaine is a highly effective surfactant, can quickly and effectively remove the wound tissue Debris and biofilms, promote the separation of wound contaminants, and provide less tissue irritation, thereby effectively preventing reinfection; undecylenamidopropyl betaine and polyhexamidine (prontosan wound irrigation solution) are dissected by covering the breast abscess Drainage surgery wounds, can effectively control the occurrence of re-infection, thereby promoting the production of granulation tissue, reducing wound healing time and reduce the frequency of dressing change, thereby reducing the patient pain caused by the dressing.

Conclusion

In this study, undecylenamide propyl betaine and polyhexamidine (prontosan wound irrigation solution), the cure rate of 100%, no recurrence rate was significantly higher than the traditional treatment, shorten the healing time , Reducing the frequency of dressing, indirectly reducing the pain caused when the patient dressing.

In summary, undecylenamidopropyl betaine and polyhexamidine (prontosan wound irrigation solution) in the ablation of breast abscess incision and drainage have a significant effect, undecylen amidopropyl betaine And polyhexamidine (prontosan wound irrigation solution) to improve the rate of wound healing, reduce the wound infection rate, thus effectively prevent reinfection, can effectively control the occurrence of re-infection, promote the production of granulation tissue, shorten the wound healing Time, reduce the frequency of dressing, reduce the pain caused by dressing change.

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