Title: The effective of polyhexanide, betaine solution and gel products for wound healing

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Background

Patients after the heart and thoracic surgeries are likely to result in pressure injuries easily. Some of them are hemodynamically unstable which need to use life-saving devices such as extracorporeal membrane oxygenation (ECMO), intra-aortic balloon pump (IABP), continuous renal replacement therapy (CRRT), also changing position are not allowed. Moreover, Infection, Diabetes, Malnutrition and/or obesity are possible factors, developing pressure injuries. If a pressure injuries occurs in critically patients, pressure injuries wound severity tends to increase rapidly. The most common wound in ICU patients is deep tissue injury or biofilm, causing slow healing. Treatment by using polyhexanide and betaine solution and gel to prepare wound bed causes the creation of granulation tissue[2], which is the key to help speed up wound healing[3].

Methods

This is the case study based on 3 open-heart surgery patients, who were admitted in The ICU-CVT in Phramongkutklao Hospital between January 2019 and July 2020. There are 3 new pressure injuries on that patients, which were treated by using polyhexanide and betaine solution and gel in 1 month.

Result

There were 3 cases of pressure injuries that occurred as buttock ulcer, the severity in 2 cases found in deep tissue injury, 1 case was pressure injury stage 4, biofilm or necrotic tissue covered the wound. The wound area reduces slowly in the case with more complications and interventions.After using polyhexanide and betaine solution and gel wound area reduction were 35.7%,20%,87.5%.

Conclusions

After using polyhexanide and betaine solution and gel in pressure injuries, we founded about necrotic tissue and biofilm decreased. Moreover, promoting

granulation tissue and wound area are smaller gradually. In critical patients represented a short time to healing. However, the patient's limitations were difficult to control.

Reference

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