

ABSTRACT

The Effect of *Aloe Vera* And Propylene Glycol Concentration on Physical Characteristics of Chitosan-*Aloe Vera* Film as A Wound Dressing

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Film as wound dressing has benefit such as can act as a barrier against bacterial penetration into the wound environment, improved patient compliance with its simple application, elastic and flexible. Combination of chitosan and Aloe vera improve the effectiveness of wound healing with antibacterial and anti-inflammatory effects. The addition of plasticizers to the film material can improves the functional properties of the film by increasing extensibility, flexibility and elasticity. The objective of this study was to determine the effect of Aloe vera concentration and plasticizer (propylene glycol) concentration against the physical characteristic of chitosan-Aloe vera film as wound dressing. The result showed that the addition of Aloe vera concentration affected film thickness, moisture content, and swelling index. The addition of propylene glycol concentration affected film thickness, pH, moisture content, and swelling index. The interaction between Aloe vera and propylene glycol concentration affect film thickness, pH, moisture content and swelling index.

Keywords: Chitosan, Aloe vera, Plasticizer, Film, Wound dressing.