

Development of wound dressings based on polysaccharide extracted from *Agaricus blazei* Murill

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Abstract

Polysaccharide-based dressings have increasingly become viable alternatives to somewhat incompatible and often problematic cotton or viscose gauzes traditionally used for wound dressings. β -glucan, a kind of polysaccharide which is particularly abundant in *Agaricus blazei* Murill, is known as the bioactive materials. β -glucan extracted from *Agaricus blazei* Murill enhances the recovery of damaged tissue and the production of epithelial cell growth factor which is necessary to heal the burn and wound on the epidermal tissue. Also the maintenance of the moisture extent on epidermal tissue has an effect on the removal of necrotic tissue and the restoration of epidermal tissue through enhancing the immune system at skin layers.

In this study, the material delivery system of β -glucan extracted from *Agaricus blazei* Murill into epidermal tissue was elucidated using the skin permeating enhancer. The enhancing effects of various penetration enhancers such as isopropyl myristate and tween 20 and some other enhancers on the permeation of β -glucan were evaluated using Franz diffusion cell.

References

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