When East Meets West: Panax Notoginseng Alginate Diabetic Wound Dressing

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For diabetes sufferers, a simple wound can lead to serious diabetic ulcers which may result in amputation. Most commercial dressings can only address the basic needs for diabetes and usually requires a much longer healing time than for non-diabetes. The combination of sodium alginate, calcium chloride, and a Chinese herbal plant called Panax Notoginseng (Sanqi) dressing can be a solution for diabetic wound. The antimicrobial ability based on the Standard Plate Count (SPC) shown that that alginate demonstrated excellent antimicrobial ability and Panax Notoginseng had the best antimicrobial ability among all herbs tested. Alginate was able to release Panax Notoginseng sustainably which was proved by Colorimetry. In the in vivo experiment for 2 weeks, the dressing healed wounds 9% faster in terms of wound area percentage change and scored 15% higher marks than the ordinary dressings in the market, as evaluated by the medical professionals throughout the healing process in re-epithelialization and granulation. At the same time, the alginate dressing with Panax Notoginseng can heal the wound 1.5 times faster and scored 8% higher than the one without Panax Notoginseng. This newly invented dressing can also be flexibly applied to any shape/size of wound, help infection control, promote healing with the proven functions of Panax Notoginseng, which can facilitate blood circulation to benefit the diabetes patients.

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