Banana leaves as an alternative wound dressing

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BACKGROUND
There is a need for cheap and efficacious wound dressings in developing countries. Banana leaves have been described as an excellent, inexpensive, easily available dressing material in tropical countries. As a natural product, banana leaves are heavily contaminated with various pathogens that must be removed before they can be used as wound dressings, but effective sterilization methods that do not affect the beneficial wound-dressing properties of banana leaves have not been described.

OBJECTIVES
To study different sterilization methods and determine which can be used on banana leaves without affecting their beneficial wound-dressing properties.

MATERIALS AND METHODS
We first compared the use of different decontamination techniques to reduce the natural microflora of the leaves and then tested the wound-dressing properties of the leaves in a mouse model of skin transplantation and in postsurgical patients in Uganda, Africa.

RESULTS
Steam sterilization proved to be the optimal sterilization technique. Banana leaves displayed wound-dressing properties that equaled those of petroleum jelly gauze dressings and were tested successfully in a clinical setting in postsurgical patients in Uganda, Africa.

CONCLUSION
We found banana leaves to be an excellent alternative wound dressing, combining the desirable properties of modern wound-dressing material with low cost.