

## Rice Wine Intoxication in a Nondrinker

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### To the Editor:

We report a case of alcohol intoxication via topical absorption in a patient with scald burns.

A 51-year-old Korean woman sustained a 21% TBSA second-degree burn to bilateral legs and left arm after spilling boiling water while cooking. She was admitted for pain control and debridement and discharged after family members were taught dressing changes. Three days later, she returned to the hospital because she was increasingly confused and stuporous. Laboratory values were within normal limits except for a blood alcohol level of 233 mg/dl and burn wound cellulitis. She required antibiotics and further debridement. Additional history noted that the family dressed the wounds with Bacitracin two to three times a day and poured rice wine over the wounds and the dressings.

Although percutaneous absorption of alcohol is physiologically possible, the presence of intact skin serves as a formidable barrier. Consistent application of ethanol on the skin, such as in the form of hand disinfectants, results in relatively low but measurable

blood concentrations of ethanol and acetaldehyde.<sup>1</sup> In the context of burn physiology where the skin is damaged or absent, the absorption of ethanol can be increased substantially.

Rubbing alcohol has been proposed as a cleansing agent in the initial treatment of burns. There have been reports of chemical burns when 0.5% chlorhexidine in 70% alcohol has been used in premature infants.<sup>2</sup>

Although home remedies are often used in the treatment of burns, they are not without detriment, as seen in this case.

### REFERENCES

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