

Case Report

Case 1

A 20-year-old male sumo wrestler had noticed itchy erythema on the right knee and leg (Fig. 1a) one month before presentation. Although he had a past history of atopic dermatitis, he had only mild xerosis on the limbs. Because he preferred pushing techniques without gripping a *mawashi* (a belt sumo wrestlers wear), he often hit and rubbed his right knee on the ground. Although other body sites were exposed to the ground, the eruption was localized to the area of friction. From these features, we diagnosed friction dermatitis from rubbing the ground.

Case 2

A 20-year-old male sumo wrestler had noticed itchy erythema on the knuckles 3 months before presentation. Physical examination showed itchy lichenified erythema on the knuckles of both hands (Fig. 1b). He did not have a past history of atopic dermatitis. He preferred the fighting style of gripping the *mawashi*, and therefore, he habitually scratches his knuckles on an opponent wrestler's *mawashi*. Although other body sites were exposed to the *mawashi*, the eruption was localized to area of friction. We diagnosed friction dermatitis caused by gripping a *mawashi*.

Discussion

Previously, we have reported two cases of friction dermatitis, one of which occurred by the pitching motion in a baseball pitcher (2, 3). Indeed, although various sports may cause dermatitis by specific agents in each sport (4), frictional trauma is also a cause. In our cases, the eruption was localized to the areas of friction. Therefore, we conclude that these cases are friction dermatitis. There are two styles of sumo fighting as follows. One is a pushing technique by which a wrestler fights without contact but easily falls down on the ground during frontal push-out. Another is a technique through maintaining *mawashi* grips, by which the wrestlers fight in contact with each other. The sumo style determines which body part suffers the frictional insult. Our cases show the contrasting clinical appearances elicited by different sumo styles, suggesting that the lesional site depends on the fighting style.

2 cases of sumo wrestlers' friction dermatitis

Contact Dermatitis 2008; 58: 374–375

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Key words: irritant contact dermatitis;
occupational; sports.

Friction is an important trigger in contact dermatitis, although it has been under-recognized (1). We report here 2 cases of contact dermatitis induced by the friction during sumo fighting.

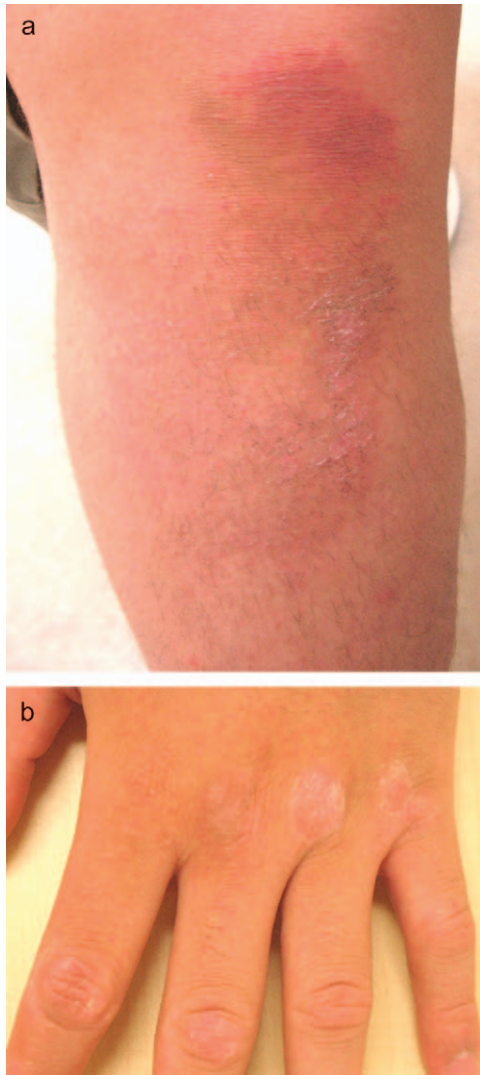


Fig. 1. Clinical appearance of case 1 (a) and case 2 (b).

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