



Fig. 1. Phytocontact dermatitis on both knees mimicking burn injury.

Phytocontact dermatitis mimicking a burn injury due to *Ranunculus constantinopolitanus*

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Key words: burn; phytocontact dermatitis; *Ranunculus constantinopolitanus*.

In Turkey, alternative herbal remedies are widely used, especially for rheumatological joint pain (1), and may cause phytocontact dermatitis.

Case Reports

Nine cases of irritant phytocontact dermatitis [six females and three males; mean age 63 years (range 52–76)] were seen, and in all cases, they had applied bruised plant material as a poultice to a knee for the relief of joint pain. Seven patients had applied the poultice to both knees (Fig. 1), while the other two patients had applied it to only one of their knees. The poultices, applied for about 12 hr, caused burn-like reactions. From the histories, irritant phytocontact dermatitis was suspected clinically. Patch tests to the European baseline series were negative; no patient was tested to the plant material. Following topical treatment, after about 10 days, there was healing of the burn-like reactions with marked hyperpigmentation.

The plant materials used by our patients were identified as *Ranunculus constantinopolitanus*.

Discussion

In Turkey, *R. constantinopolitanus* is frequently used to relieve rheumatological joint pain (1). Irritant, phototoxic, immediate, and delayed hypersensitivity reactions have been described from skin exposure to the plant (2) that contains ranunculin and protoanemonin glycoside. Newly damaged specimens of the plant produce protoanemonin from ranunculin, which is a strong contact irritant to the skin and mucous membranes, leading to its medicinal use as a counterirritant (3).

Because of blister formation, patients have been mistakenly treated for burns in plastic surgery clinics (4, 5),

as in the case also with our patients. Outside of Turkey, there is little information about phytodermatitis caused by *Ranunculus*. A death caused by sepsis following an acute irritant contact reaction from it has been reported (5).

Although we are aware of plants in our gardens that may cause problems, popular therapies such as aromatherapy, phytotherapy, or 'herbal therapies' may result in exposure to toxic plant materials (6).

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References

1. Polat M, Oztas P, Yalcin B, Tamer E, Gur G, Alli N. Contact dermatitis due to *Allium sativum* and *Ranunculus illyricus*: two cases. *Contact Dermatitis* 2007; 57: 279–280.
2. Mantle D, Gok MA, Lennard T W. Adverse and beneficial effects of plant extracts on skin and skin disorders. *Adverse Drug React, Toxicol Rev* 2001; 20: 89–103.
3. Tanker N, Koyuncu M, Coşkun M. *Farmasötik botanik*, Vol. 9: Ankara, Ankara Üniv Eczacılık Fakültesi Yayınları 78, 1998: pp. 222–229.
4. Yenidünya M O, Can Z, Demirseren M E. A burn from a plant. *Plast Reconstr Surg* 1999; 103: 335–336.
5. Emsen I M. İlginç ve öldürücü bitki kökenli olan buttercup (*ranunculus: düğün çiçeği*) yanığı. *Türk Plastik, Rekonstrüktif ve Estetik Cerrahi Der-gisi* 2006; 14: 142–143.
6. Oztas P, Gur G, Senlik B, Yalcin B, Polat M, Tamer E, Alli N. Phytocontact dermatitis due to *Ranunculus illyricus*: two cases. *J Eur Acad Dermatol Venereol* 2006; 20: 1372–1373.

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