Toxicoderma due to Rhizoma Coptidis

E Roche, A Martínez-Aparicio, C Laguna and V Alegre
Servicio de Dermatología, Hospital General Universitario de Valencia, Valencia, Spain

To the Editor:

Unlike Western medicine, traditional Chinese medicine treats invisible functional or physiological disturbances. This is a bioenergy medicine, which aims to achieve electromagnetic, nutritional, and emotional balance in the body, without the use of drugs or surgery. Its tools include acupuncture, Chinese herbs, manipulative massage (Tui Na), and relaxation exercises (Tai Chi, Oigong), among others. In Western countries Chinese medicine has traditionally been considered a popular and unscientific discipline, based on superstition, although, in fact, more than 4000 years of practice endorse its knowledge and applications. More than 5000 botanical species have been identified and classified on the basis of their medicinal actions and uses. Combinations of herbs are commonly prescribed, rather than individual species, in order to improve effectiveness and to reduce adverse effects.

We present the case of a 23-year-old man of Chinese origin who attended the emergency department with extensive skin lesions following the ingestion of Chinese herbs known as Huang Lian (*Coptis chinensis, Rhizoma coptidis*) to treat acne. The patient stated these herbs were widely used in his family and that he himself had taken them previously with no adverse effects. On this occasion the lesions appeared less than 12 hours after the ingestion of a single dose of the plant extract, with no signs of infection or herpes recurrence. According to the patient, he had not been vaccinated recently or taken any other drug or herb.

Figure 1. Generalized confluent rash.

The lesions consisted of erythematous macules and papules, some "target-like" lesions, with a central vesicle-pustule and a more violaceous periphery. These initially appeared on the face and neck, and later spread down from the head and coalesced (Figure 1). The lesions were mildly pruritic, leaving slight residual pigmentation on healing.

Laboratory tests including blood count and biochemical analysis with renal and hepatic profile, autoantibodies (antinuclear antibodies, extractable nuclear antigen, and antineutrophil cytoplasmic autoantibodies), viral serology (Epstein Barr, hepatitis B and C, and human immunodeficiency virus [HIV]), and urine sediment only revealed leukocytosis of 1.210 × 10^9/L (82.4% neutrophils, 10.2% lymphocytes) and proteinuria of 30 mg/dL.

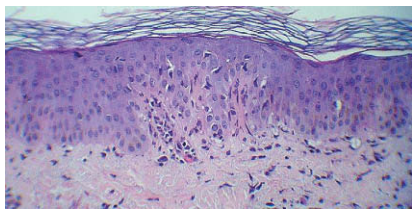

Figure 2. Vacuolization of the basal layer and inflammatory infiltrate in the papillary dermis. Hematoxylin-eosin ×20.

A skin biopsy was taken which showed slight epidermal acanthosis with atypical keratinocytic maturation and basal layer vacuolization, along with a predominantly lymphocytic perivascular inflammatory infiltrate in the superficial dermis (Figure 2).

The condition was treated with a tapering course of oral corticoids, oral anti-histamines, and topical corticoids. The lesions healed in 8 days leaving some post-inflammatory hyperpigmentation.

To date, no cases of toxicoderma after ingestion of Chinese herbs have been reported in the medical literature, although Chinese herbs—and *Rhizoma coptidis* in particular—have been known to produce allergic rash or anaphylactic reactions, along with other side effects, such as dizziness, tinnitus, nausea, vomiting, diarrhea, palpitations, and anemia. These polyvalent herbs, traditionally described as "bitter, cold, and drying," are attributed with pharmacological properties including antimicrobial activity (fundamentally antibiotic, but also antiviral and antifungal), antiinflammatory, antiarrhythmic, vasodilatory, antipyretic, cholagogic, antiulcer, antidiarrhetic, and local anesthetic properties. They also reduce cholesterol and prevent hemorrhagic cystitis induced by cyclophosphamide. The herb can be administered systemically or topically, and is generally used in combination with other Chinese herbs to improve its effectiveness and safety profile.[1] The most important chemical component is berberine, but the plant also contains coptisine, worenine, palmatine, jatrorrhizine, magnoflorine, columbamine, and, curiously, colchicine. Therapeutic dosage ranges from 2 g to 10 g of dry weight, with a maximum dose of 15 g. Warnings state the herb should be used with care in "cold" patients, those with "a yin or yang deficiency," or those who

have undergone gastrectomy or splenectomy, and it should not be used at all in patients with glucose-6-phosphate dehydrogenase deficit.

Rhizoma coptidis and its main alkaloid component, berberine, inhibit the proinflammatory activity induced by tumor necrosis factor-alpha (TNF-α)[2] in a dose-dependent manner. Recent studies have investigated the antiacne properties of various groups of Chinese herbs—some containing *Rhizoma coptidis*—showing their antilipogenic and antibacterial action against *Propionibacterium acnes*.[3] Higaki et al[4] even suggest these are more effective than antibiotics such as minocycline or erythromycin because, unlike these, the Chinese herbs do not produce an increase in minimum inhibitory concentration.

The fact that the patient had previously ingested this extract without reaction suggests a hypersensitivity mechanism. Another hypothesis would be that the excess from the dose ingested could have produced an imbalance between the formation of reactive metabolites and enzymatic hepatic detoxification, leading to an accumulation of reactive oxidants, which acted as haptenes and provoked an immune response.

In conclusion, we wish to stress the power of Chinese herbs to produce both therapeutic benefit and side effects, including dermatological ones, whilst pointing out that the extensive use of such treatments in the growing Chinese population implies greater consideration must be given to the possibility of their ingestion in cases of toxicoderma.

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Sweet Syndrome as a Possible Initial Manifestation of Human Immunodeficiency Virus Infection

M Cabanillas, I Rodríguez-Blanco, D Sánchez-Aguilar, and J Toribio

Departamento de Dermatología, Complejo Hospitalario Universitario, Facultad de Medicina, Santiago de Compostela, La Coruña, Spain

To the Editor:

Acute febrile neutrophilic dermatosis was initially described by Sweet in 1964[1] as reactive dermatoses in middle-aged women following upper respiratory tract infections. These dermatosis had 4 characteristic clinical elements: fever; leukocytosis; eruption of erythematous and edematous plaques on the extremities, face, and neck; and a dense predominantly neutrophilic inflammatory infiltrate in the dermis, with no sign of vasculitis. The reactive nature of this condition is noted for its frequent association with infectious, inflammatory, or neoplastic processes. We present a new case of Sweet syndrome as the initial manifestation of infection with the human immunodeficiency virus (HIV).

A 35-year-old male, with no relevant medical history, was examined for fluid-filled erythematous and edematous lesions that had presented 4 days earlier. These were painful to pressure and were found on the upper lip (Figure 1), outer ears, scalp, knees and elbows (Figure 2), and finger pads, with no associated fever or malaise. The patient had no previous catarrhal symptoms, and had taken no medication in the previous month. Test results showed a white

Figure 1. Violaceous erythematous and edematous plaques painful to pressure, on the upper lip.

Figure 2. Violaceous erythematous and edematous plaque on the left elbow.