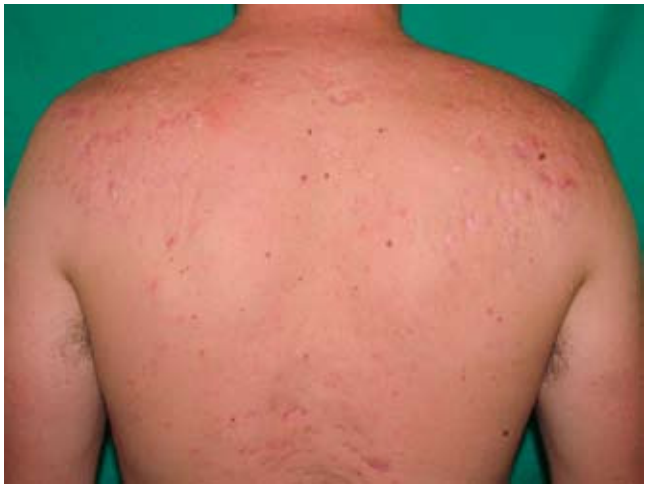

Figure 3 Residual scarring on the back after achieving therapeutic control of the condition.

Multiple factors are implicated in the pathogenesis of acne, including the proliferation of *Propionibacterium acnes*, which stimulates the production of proinflammatory cytokines such as interleukin (IL) 8, IL-1-β, and TNF-α. It would therefore seem obvious that these mediators play a role in the pathogenesis of the inflammatory lesions of acne.[2] The most common treatment for severe acne with a marked inflammatory component is isotretinoin at a dose of 0.5-1.0 mg/kg/d for at least 5 to 6 months, often in association with oral prednisone. However, the response is sometimes minimal and can be slow to develop, and there may be frequent flares of the acne during treatment, as occurred in our patient. Moreover, the adverse reactions of these drugs may limit their use in certain patients.[3] Under these circumstances, we believe that TNF antagonists may be an effective alternative.

We present the second case in the literature of severe acne conglobata resistant to conventional treatments. In our patient, rapid, sustained remission was achieved with etanercept, a TNF antagonist.

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J. Vega,* L. Sánchez-Velicia, and T. Pozo

Servicio de Dermatología, Hospital Universitario Río Hortega, Valladolid, Spain

*Corresponding author.
E-mail address: jvegagu@gmail.com (J. Vega).

Annular Lesions Induced by a Chlorine Tablet

Lesiones anulares por una pastilla de cloro

To the Editor:

Chlorine is widely used in the chemical industry, as a disinfectant in swimming pools, and even as an antiseptic in Dakin solution. People can be exposed to chlorine in road traffic accidents,[1] in the workplace, by mixing cleaning products, or through swimming pool accidents. Liquid chlorine (sodium hypochlorite) and chlorine powder, tablets, or granules (symclosene) are used in swimming pools. Sodium hypochlorite is highly corrosive.[1]

Trichloroisocyanuric acid (symclosene) is a stabilized chlorine disinfectant and a mild irritant to dry skin, but in the presence of water it decomposes into isocyanuric acid and hypochloric acid, the latter of which is corrosive.[2]

There are no reported cases of chemical burns from symclosene tablets in the literature. We describe a chemical burn secondary to contact with a symclosene tablet.

The patient was a 43-year-old man whose 9-year-old daughter, without him noticing, placed a chlorine tablet inside his swimming trunks during a play session in a swimming pool. The tablet remained lodged between the patient's skin and the cloth of his swim trunks. Some 15 minutes later, after leaving the pool, the patient noted a sensation of burning on the left buttock and discovered the chlorine tablet.

On the left buttock there were 2 well-circumscribed circular lesions of 6 cm in diameter, characterized by elevated erythematous areas with an uneven surface (Figures 1 and 2); the lesions were pruritic and tender. The lesions were bathed in abundant clean water for 10 minutes. The pruritus and pain continued for 48 hours and the lesions healed spontaneously within 7 days with the patient washing daily with soap and water.

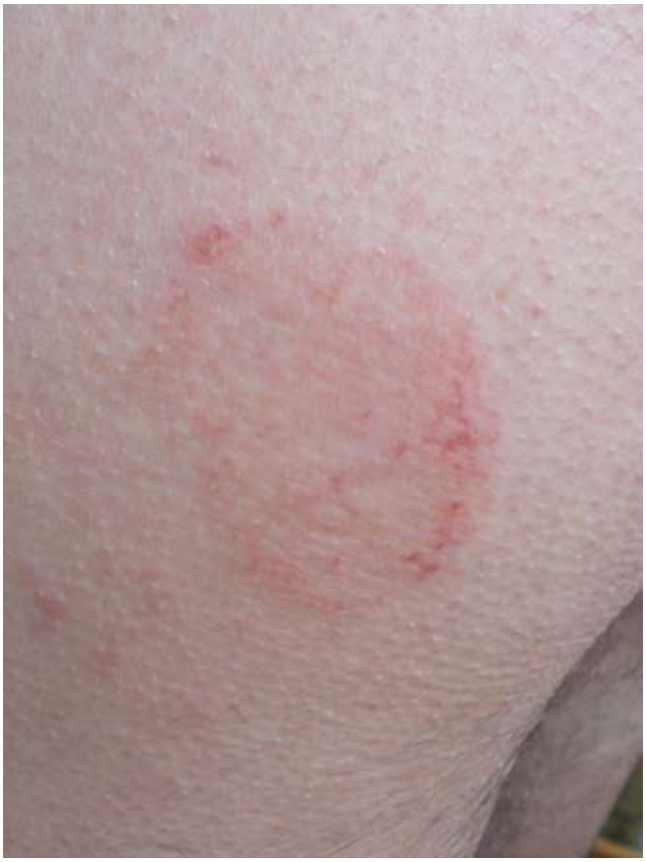

Figure 1 Erythematous annular lesion of 6 cm in diameter, with areas of loss of continuity of the skin surface.

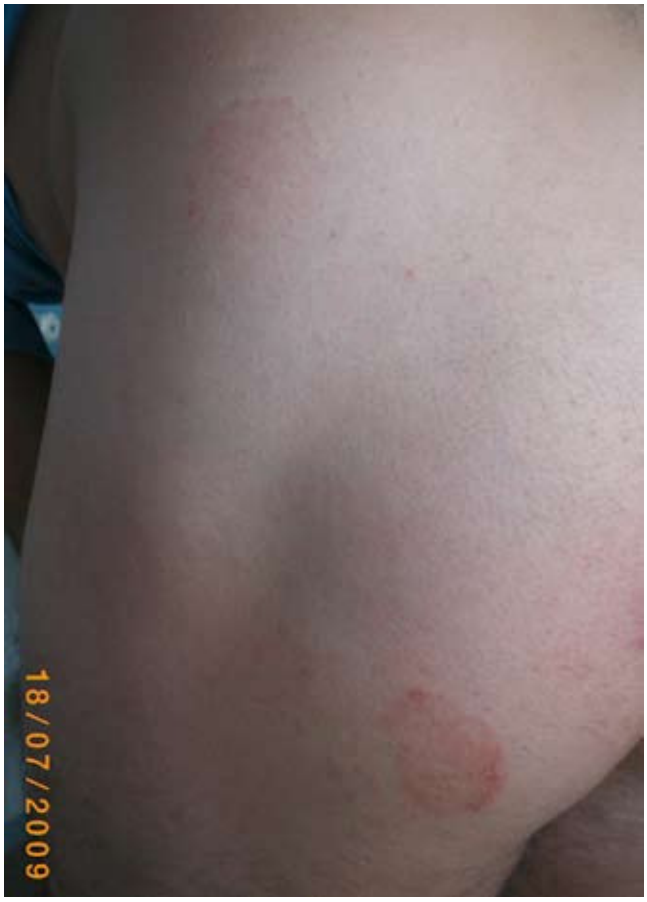

Figure 2 Two annular lesions, the less intense one in the upper outer quadrant of the buttock and the more intense one on the lower inner quadrant.

Skin does not absorb chlorine well, but there can be penetration of small quantities where there is exposure to chlorine in the form of gas, liquid bleach, or water or soil with a high chlorine content. The substance is immediately excreted from the body. Chlorine can irritate the skin and cause burns, especially where there is moisture present. Most cases of exposure to chlorine result from contact with swimming pool products.[3] The events are generally self-limiting, rarely causing serious adverse effects except for occasional cases of respiratory involvement.[4] Mild skin problems occur in 2.5% of cases, generally in the form of irritation. However, symclosene becomes corrosive when it comes into contact with water or with moist skin under occlusive conditions, causing burns, redness and swelling. Tissue destruction can occur if there is repeated exposure.[5]

This case is of interest for the form of the circumscribed annular lesions, which could lead to an error of diagnosis if unaccompanied by an adequate patient history, with a differential diagnosis that would include tinea corporis, erythema chronicum migrans, subacute cutaneous lupus, erythema annulare centrifugum, fixed eruption, erythema gyratum repens, secondary syphilis, and erythema marginatum.[6]

It is also notable as chlorine tablets rarely cause burns and usually only have an irritant effect. In our patient, burning of the skin occurred due to the unusual combination of 15 minutes of sustained contact between the tablet and water, and a degree of occlusion.[5]

The recommended procedure for contact with chlorine is immediate and prolonged bathing of the contaminated areas with water for 15 minutes and removal of contaminated clothing, jewelry, and footwear, followed by the application of a loose sterile dressing to the burn. Some authors also recommend early topical treatment with povidone iodine solution of skin affected by chemical irritants in order to prevent tissue destruction.[7]

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F.J. Castellote-Varona

Unidad de Valoración y Cuidados Geriátricos, Hospital Universitario Virgen de la Arrixaca, Murcia, Spain

E-mail address: franciscoj.castellote@carm.es

Fondaparinux and Lepirudin as Therapeutic Alternatives in a Disseminated Eczematous Skin Reaction to Low-Molecular-Weight Heparin

Fondaparinux y lepirudina como alternativas terapéuticas ante una reacción cutánea eccematosa diseminada a heparina de bajo peso molecular

To the Editor:

Low-molecular-weight heparins are obtained by depolymerization of conventional heparin; these heparins are part of the anticoagulant armamentarium and are widely used as therapy or prophylaxis in thromboembolic conditions. They are used at the initiation of long-term oral anticoagulant therapy and are the treatment of choice for the substitution of oral therapy before invasive diagnostic or therapeutic procedures. Reactions such as ecchymoses are commonly observed at the injection sites; eczematous plaques are seen less often.

We present a patient who developed an eczematous skin reaction related to Clexane (enoxaparin); intradermal tests revealed delayed-type hypersensitivity and subcutaneous challenge confirmed cross-reactivity to unfractionated heparin and other low-molecular-weight heparins available at our hospital.

An 80-year-old woman with paroxysmal atrial fibrillation and a double aortic valve lesion was receiving oral anticoagulation with Sintrom (acenocoumarol). She was admitted for cardiac catheterization (as part of the work-up for valve repair) and the oral anticoagulant was switched to subcutaneous Clexane at a dose of 40 mg/24 h. Four days after starting the new treatment, pruritic erythematous papules appeared in the periumbilical region, coinciding with the sites of injection, and tended to coalesce to form plaques (Figure 1); dyshidrosiform lesions were also observed on the palms (Figure 2). Following 48 hours of replacement therapy with intravenous sodium heparin, the lesions became disseminated. Skin biopsy showed spongiosis with mild eosinophilia. The patient recalled a similar acute local reaction when she was admitted on a previous occasion due to the onset of atrial fibrillation and received subcutaneous Clexane prior to oral anticoagulation; the reaction resolved after the oral therapy was started.

Because a delayed-type hypersensitivity reaction to enoxaparin was suspected, heparin was discontinued and

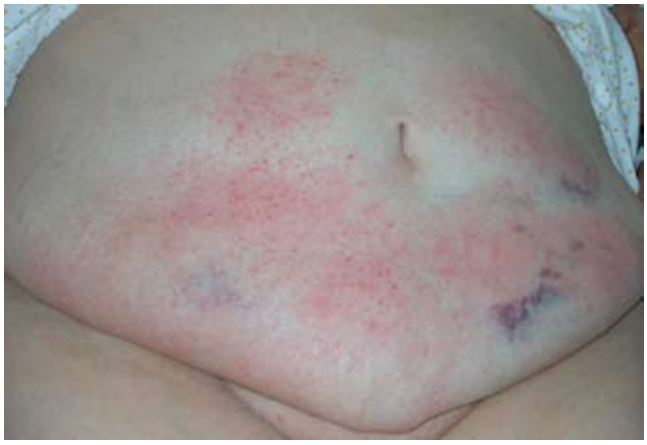

Figure 1 Periumbilical eczematous lesions in the areas where subcutaneous enoxaparin was administered.

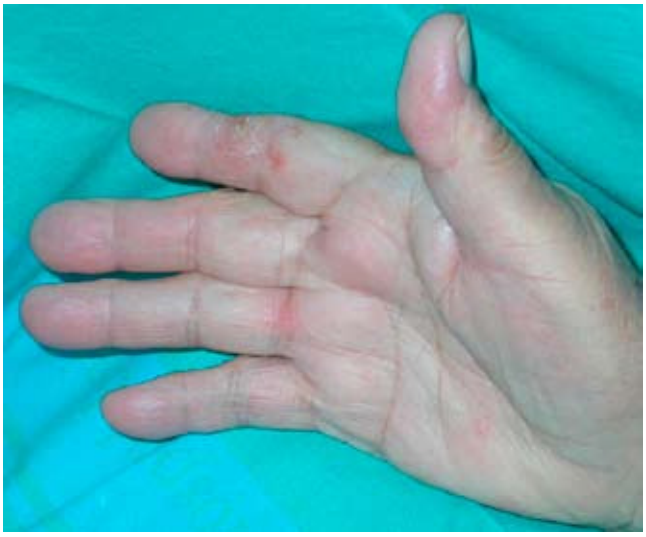

Figure 2 Dyshidrosiform lesions on the palm of the right hand.