revealed that he had begun to take ‘a few over-the-counter pills’ as well, mostly anti-itch and cold medications.

We discontinued all of his medications except for furosemide and asked his wife to remove all of the pills from his medicine cabinet. We also suggested the use of topical emollients for dry skin and hydrocortisone/pramoxine lotion for itch.

We received a call from his primary care provider the following day informing us that his delusions had resolved overnight. He has remained symptom free for over 6 months, and he and his wife are sleeping well.

This case is presented to highlight the importance of recognizing the effects of polypharmacy, particularly in regard to anticholinergic side-effects. Polypharmacy can be the result of multiple healthcare providers treating multiple medical comorbidities, but can also be due to misunderstanding by patients about the contents and safety of over-the-counter medications. Our patient’s clearance of doxepin and cetirizine was decreased due to his age, and exacerbated with his likely cotreatment with other antihistamines. The multiple metabolites present in prescription and over-the-counter medications can induce anticholinergic side-effects, including urinary retention, dry eyes and dry skin, and delirium. In addition, many cardiac medications such as loop diuretics, digoxin, and calcium channel blockers have significant anticholinergic effects, as do oral corticosteroids, immunosuppressive medications, and antibiotics; in vitro studies show furosemide to have as much anticholinergic activity as ranitidine. Elderly patients and those with decreased hepatic metabolism are particularly susceptible to these agents. These symptoms will quickly resolve with discontinuation of the medication.

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Pustular psoriasis induced by infliximab

Editor

To date, about 10 cases of the appearance of pustular psoriasis (both localized and general, although predominantly of palmoplantar localization) in patients undergoing treatment with tumour necrosis factor-alpha (TNF-α) inhibitors have been reported. In some of the cases, the patients presented with the complaint before beginning treatment, and in others, like the present case, the problem first appeared during treatment.

A 42-year-old woman presented with 4-month-old, recurrent, itchy lesions on the palms of the hands. The patient suffered from rheumatoid arthritis and had been following treatment with 200 mg/8 weeks infliximab (Remicade, Centocor, Springhouse, PA, USA) and discontinuous methotrexate prescribed by her rheumatologist with notable improvement. After dose number 11 (at 16 months from the beginning of the treatment), lesions appeared on the palms of the hands.

Physical examination showed numerous 1- to 2-mm symmetrical pustules on both palms with underlying desquamation, erythema and fissures occupying one-third of each palm and localized in the centre and on the thenar eminence (fig. 1). There were no lesions on the soles nor

![fig. 1 On both palms of the hands, erythema hyperkeratosis and desquamation. Also, we can observe a group of 2 mm-diameter sterile pustules on the left hand.](image)
were the nails affected. Skin biopsy was performed and it showed acanthosis with parakeratosis, elongation of the dermal papillae, intraepidermal pustules and neutrophils into the stratum corneum (fig. 2). The dermis showed an increase in size and number of blood vessels, and mixed perivascular infiltration. With these data we diagnosed pustular palm psoriasis. Treatment was begun with topical corticosteroid therapy with notable improvement.

However, with the subsequent dose of infliximab, the patient noticed lesions identical to the previous ones. As a result, corticosteroid ointment was required and once again the lesions resolved. The patient still presents with the appearance of lesions which coincide with the administration of this drug, but due to successful control with topical treatment, it has not been necessary to suspend the use of infliximab.

Infliximab is an intravenous monoclonal TNF-α antibody that has been used in the USA on more than 225 000 patients for treating Crohn’s disease and rheumatoid arthritis, as well as ulcerative colitis and ankylosing spondylitis. Recently, many trials have been done on numerous patients and have demonstrated its safety and efficacy in treating psoriatic arthropathy and plaque-type psoriasis that do not respond to other systemic treatments. Although its application has not been approved for localized or generalized pustular psoriasis, we find reported cases with notable improvement with these biological drugs.

Several cutaneous side-effects have been described following treatment with anti-TNF agents, among the most common being erythema and oedema at the point of injection and unspecific rashes. Regarding patients whose psoriasis (both plaque-type and pustular) either worsened or began as a result of treatment with TNF-α inhibitors, we have found 24 cases published with the lesions appearing at between 2 and 14 months after treatment begins. Of these, 13 patients were administered infliximab, eight of them being diagnosed with pustular and five with plaque-type psoriasis.

Various hypotheses have been put forward concerning the appearance of cutaneous lesions in patients treated with anti-TNF-α. Vergara et al. believe that in the case of infliximab, the pathogeny may be associated with an immunological reaction of the host against the murine portion of the molecule, despite the cutaneous lesions (multiform erythema) being observed by them in one patient who was also treated with etanercept, which would rule out this hypothesis. Haibel et al. think that these types of reactions may be due more to a class effect than to a specific reaction of one of the drugs. Sfikakis et al. explain that anti-TNF could alter immunity and this would promote an inflammatory autoimmune response in the skin of predisposed individuals. In any case, the actual pathogenic mechanism involved remains unknown.

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Letters to the Editor


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Transient autologous serum skin test reactivity in a patient with nonsteroidal anti-inflammatory drug hypersensitivity

Editor

Autologous serum skin test (ASST) positivity, first described by Grattan et al.,1 has been suggested to indicate the presence of functional histamine-releasing autoantibodies or histamine-releasing factors in some chronic idiopathic urticaria (CIU) patients.2 Recent data indicate that ASST shows a high rate of reactivity not only in CIU, but also in cases with non-allergic rhinitis and asthma,3 multiple intolerances to nonsteroidal anti-inflammatory drugs (NSAID)4 and multiple drug allergy syndrome.5 To our knowledge, the patient presented here is the first case of severe, transient ASST positivity following a systemic anaphylactic or anaphylactoid drug reaction.

A 24-year-old male patient with allergic rhinitis and bronchial asthma who had multiple intolerances to NSAID (diclofenac sodium and naproxen sodium) consulted at the allergy outpatient clinic. History taking revealed a systemic reaction characterized by pulmonary/circulatory signs (dyspnoea, wheezing, hypotension, tachycardia, etc.) following intravenous administration of dipyrone for colic pain resulting from nephrolithiasis 2 days earlier. Physical examination was within normal limits. Because he had a history of NSAID intolerance, the patient underwent an intradermal test with his own serum for investigational purposes. The patient had not been using any medication including oral antihistamines, which will result in false-negative ASST reaction. After obtaining informed consent, ASST was performed with 0.05 mL of fresh autologous serum on flexural aspect of the forearm. Physiological saline (0.9%) and histamine phosphate (0.01%) were used as negative and positive controls, respectively. Although there was a much larger ASST positivity (weal with a diameter of 17 mm and erythema of 30 × 24 mm; the largest reaction we have ever seen in our department) than positive control, repeat test (ASST) performed 3 days later was found to be negative despite a positive histamine reaction.

A transient ASST reactivity as seen in our patient has never been reported before. Drug metabolites (with histamine-releasing activity?) still present in sera of drug-intolerant and/or drug-allergic patients following a systemic anaphylactic or anaphylactoid reaction might have resulted in the occurrence of transient, severe ASST positivity. The fact that repeat ASST yielded negative result may confirm this hypothesis. As a result, it may be suggested that ASST should be delayed in patients with a recent history of drug-induced systemic anaphylactic, anaphylactoid and/or positive challenge reactions.

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