Spironolactone-induced Hypersensitivity in a Patient with Acne Vulgaris

Sir,

Spironolactone has been used for the treatment of acne vulgaris (AV) in women above 25 years with hormonal-pattern AV, defined clinically as primarily inflammatory papules, many deep-seated and tender that are located predominantly on the lower half of the face and anterior-lateral neck region.\(^1\) Spironolactone is an aldosterone antagonist that was used initially as a potassium-sparing diuretic in the treatment of hypertension and congestive heart failure. Structurally, its backbone is a basic steroidal nucleus with four rings. The rationale for using spironolactone in the treatment of AV is that is has been shown to inhibit sebaceous gland activity.\(^2\) As increased size of sebaceous glands and increased sebum secretion are essential components in the development of AV lesions, inhibition of sebaceous gland functions leads to reduced formation of acne lesions.\(^1\)

A 28-year-old female patient suffering from AV since 5 years presented with extensive inflammatory papules on the inferior border of the mandible and the anterolateral neck region bilaterally. This patient had multiple episodes of relapses and remissions in the past. The patient was initially treated with retinoids and topical application of clindamycin phosphate and benzoyl peroxide (5%) with little relief from the same. Later, a combination of ethinyl estradiol and cyproterone acetate was prescribed for 7 months with complete remission followed by relapse and exacerbation of the lesion after 7 months. The patient was prescribed with 100 mg spironolactone once daily for a month.

Within 30 min following the consumption of spironolactone, the patient developed intense pruritus, conjunctivitis, angioedema [Figure 1], skin rash, and nonspecific mechanical reflexes such as coughing and sneezing. Patient was prescribed with 10 mg of cetirizine hydrochloride and 20 mg of prednisolone stat and 10 mg of cetirizine hydrochloride was repeated 8 hourly. There was subsidence of the symptoms for 3 days following the hypersensitivity reaction.

Spironolactone is well-known drug to cause dose-dependent side effects such as hyperkalemia, orthostatic hypotension, breast enlargement and tenderness, menstrual irregularities, and reduced libido.\(^3\) Hypersensitivity reaction reported after oral spironolactone are contact dermatitis, pruritus, and bullous pemphigoid induced by spironolactone.\(^4,5\) However, reports of spironolactone-induced acute hypersensitivity reactions have been rare. The purpose of reporting this case is to make the clinicians aware of the acute adverse drug reaction of spironolactone; a drug which has sufficient data of its overall safety.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and anonymity cannot be guaranteed.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

Bipin Mehta, Neha Iyer\(^1\), C M Iyer\(^2\)
Department of Dermatology, NKPSIMS, \(^1\)Department of Oral Medicine and Radiology, VSPM DCRC, \(^2\)Department of Biochemistry, IGGMC, Nagpur, Maharashtra, India
Sir,

Fixed drug eruptions (FDEs) are defined as recurrent lesions occurring at the same skin or mucosal sites following repeated intake of the causative agent. \[1\] FDEs account for about 11%–30% of all adverse drug reactions. \[2\] The onset of FDE after the drug exposure may vary extensively. Early eruptions were documented after 30 min of drug intake. \[3\] Antibacterial drugs, nonsteroidal anti-inflammatory drugs, barbiturates and other tranquillizers, phenolphthalein and related compounds are commonly implicated agents. However, oral antifungal agents are rarely associated with FDE. \[4\]

Here, we are reporting a case of 45-year-old female who had FDE due to fluconazole.

A 45-year-old female, otherwise healthy came with complaints of fluid-filled lesions over her upper lip and fingers associated with burning and itching for 1 day. She gave a history of ingestion of a single dose of oral fluconazole (300 mg) for finger nail onychomycosis which was prescribed to her by a dermatologist. The patient had no previous history of any medical conditions, such as allergy or atopic dermatitis or any other medication except for fluconazole. There was no history of similar eruption. Cutaneous examination revealed a well-defined oval, erythematous, bright red patch measuring about 1–1.5 cm with erythematous halo over the upper lip [Figure 1] and over the left middle finger. He also had similar lesion over the lateral aspect of the left little finger which was bullous [Figure 2]. The patient was not willing for skin biopsy. Thus, based on history and examination, a diagnosis of FDE to fluconazole was made. The patient was told to stop the offending agent and was started on oral antihistamine and topical steroid with complete recovery in 5 days. Fluconazole was thought to be the causative agent for FDE in this patient based on clinical criteria. Naranjo algorithm for causality assessment revealed a score of 6 indicating “probable” causal association.

FDEs are common types of drug eruptions, usually ranking on the second or third place among all cutaneous drug-induced side effects. \[3\] It is considered a form of delayed type hypersensitivity, mediated by CD8+ T-cells. \[5\] The most common sites are the genitalia in males and the extremities in females. Lesions can also be seen on the perianal, periorbital, and truncal regions. The lesions may be solitary or multiple. They may be bullous, pigmented, or nonpigmented. \[6\]

Fluconazole is one of the most common drugs used in dermatology practice. It is a triazole antifungal medication. Commonly observed adverse effects due to fluconazole include nausea, vomiting, and elevated liver enzymes. Hypersensitivity reactions include anaphylactic reactions, angioedema and facial edema, pruritus, urticaria, erythematous or maculopapular.