Acitretin Induced reversible hyperglycemia

Sir,

Acitretin is widely used in western countries for recalcitrant severe psoriasis either alone or in combination with other topical anti-psoriatic modalities. It has also been used in many other dermatological conditions such as ichthyoses, keratodermas, lupus erythematosus, lichen planus, lichen sclerosus et atrophicus with encouraging results.\(^1,2\) Although patients with diabetes who are taking retinoids may find it more difficult to achieve control of their glucose level, an increased risk of diabetes has not been reported.\(^3\) Here we report a case of psoriasis with acitretin induced hyperglycemia, an adverse effect that has not been described earlier to the best of our knowledge.

A 46-year-old male presented with extensive psoriasis involving 75% of the body area, including the palms, soles and scalp, but without joint involvement, for the last 28 years. The lesions were initially limited to the extensor aspect of the limbs and used to clear in winters, but 3 years after the onset the disease progressed gradually. For the last ten years the patient had tried numerous remedies including homeopathic, ayurvedic and allopathic treatment. He had taken systemic methotrexate and topical coal tar preparations off and on with a variable response, but then became intolerant to methotrexate. His routine life was disturbed to considerable level. The patient was treated with oral acitretin 25 mg twice daily and topical emollients.

Prior to initiating retinoid therapy he was subjected to exhaustive hematological, biochemical and enzymatic investigations to rule out any abnormalities, especially of liver function, renal function and blood sugar. These all were within normal limits. After 10 days of acitretin therapy the patient complained of polydipsia, polyuria, polyphagia, generalized lassitude and dry mouth apart from peeling of the palmar and plantar skin. Repeat investigations showed a raised blood sugar level, up to 242 mg\%. Investigations were repeated along with glycosylated HbA test and the patient was labeled hyperglycemic. Oral treatment was stopped and he was kept on topical therapy only. His blood sugar estimation was repeated weekly. After two weeks of stopping the treatment the blood sugar level became normal.

Teratogenicity is the most important major adverse effect of oral retinoids.\(^2\) Another major adverse effect is serum lipid elevation. Cutaneous complaints are dryness of mucosae with fissuring, superimposed staphylococcal infection, palmoplantar desquamation and peeling along with burning sensation, skin atrophy, diffuse thinning and loss of hair. Besides these, ocular, gastrointestinal, musculoskeletal, neurological and hematological disturbances have been reported. In endocrinologic disturbances hypothyroidism has been found. Till date hyperglycemia has not been reported as an adverse effect of retinoids.\(^2,3\) However we have observed reversible hyperglycemia due to oral acitretin therapy in our patient.

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