CASE REPORT

Cutaneous ichthyosis secondary to isoniazid

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Abstract
Introduction: Ichthyosis is a rare dermatological affection characterized by keratinization disorder. The occurrence of acquired ichthyosis in adults is an indicator of systemic disease. Ichthyosis can also reveal infectious diseases, or complicate medication. We report a case of ichthyosis secondary to isoniazid.

Case: A man aged 75 years was treated for pleural tuberculosis. At the 3rd month of treatment, he develops cutaneous ichthyosis which regressed after discontinuation of antituberculous treatment. The reintroduction of isoniazid did reappear cutaneous ichthyosis. The dosage adjustment allows the improvement of lesions.

Discussion: Isoniazid may be a cause of cutaneous ichthyosis. Tuberculosis can promote it.

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Introduction

Ichthyosis is a group of cutaneous affections hereditary or acquired, characterized by a disorder of keratinization. The term ichthyosis is derived from a Greek word meaning fish because the scales are arranged on the skin like fish scales. The acquired ichthyosis may precede or accompany many systemic diseases [1], or be a side effect of drug treatment [2]. We report a case of ichthyosis secondary to isoniazid.

Observation

A man aged 75 years, treated for pleural tuberculosis by the fixed combination of Rifampicin + Isoniazid + Pyrazinamide + Ethambutol. At the 3rd month of treatment, after treatment with Rifampicin + Isoniazid he develops generalized scaly lesions lasting for 1 month in the context of deterioration of his general condition with combined weight loss of 5 kg, physical asthenia and anorexia. On physical examination, the patient was afebrile. On the mucocutaneous check, it is pruriginous ichthyosis, with fine and small squamae, interesting trunk, upper and lower limbs (Figs. 1 and 2) but respecting hands and feet. We also noticed a dry mouth, and cheilitis. The rest of the examination was unremarkable including no organomegaly or lymphadenopathy superficial. The hemogram shows anemia: 10 g/dL, normochromic normocytic and, lymphopenia: 880/mm3 and platelets: 445000/mm3. There is a biological inflammatory syndrome with CRP to 40 mg/L, fibrinogen to 6 g/L, globulin hyperalpha2 to 11 g/L, serum ferritin to 1990 mg/L and...
hypoalbuminemia to 30 g/L. Transaminases are normal, TP to 90%. Computed tomography (CT) chest shows a right pleural thickening without parenchymal lung nodule or adenomegalies. Abdominal ultrasound is normal. Tumor markers are negative: aFP, ACE, CA19-9, PSA, NSE and CYFRA 21. Serologic tests for HIV, HTLV-1 and syphilis were negative. Research of Mycobacterium tuberculosis in gastric aspirate and urine is negative. Antinuclear antibodies, anti-native DNA, anti JO1 are negative, and thyroid and parathyroid assessment were done.

Discussion

The acquired ichthyosis usually occurs in the elderly and is witnessing an underlying systemic affection [1]. The list of related diseases is long and varied: cancers [3], malignant hemopathies (Hodgkin’s and non-Hodgkin’s, multiple myeloma) [4], infectious diseases (tuberculosis, leprosy, HIV, infection HTLV-1: human T-cell lymphotropic virus type 1) [2,5], endocrinopathies (diabetes mellitus, hyperparathyroidism, hypothyroidism) [1,6] dysimmune diseases (lupus, dermatopolymerositis, thyroiditis autoimmune) [7] granulomatosis (sarcoidosis, blau syndrome) [1,8], profound malnutrition or vitamin A deficiency [9], chronic renal failure. Ichthyosis can also complicate drug treatment: allopurinol, cimetidine, nicotinic acid, isoniazid, statins, clofazimine, butyrophenones, dixyrazine [2].

Only two cases of ichthyosis revealing tuberculosis are described [9,10]. No case of ichthyosis secondary to isoniazid has been previously reported. It has not been demonstrated that the ichthyosis was directly related to this drug or to tuberculosis itself. Malnutrition and important weight loss could also be contributing factors.

Isoniazid was highly suspected because its reintroduction caused the recurrence of the same lesion after disappearance when treatment was stopped, the serum isoniazid was found to be in overdose and dosage adjustment of isoniazid allowed a good tolerance of the drug. In addition the vitamin B6 deficiency favored by isoniazid may participate in the generation of the ichthyosis.

References

