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LETTER TO THE EDITOR

Methotrexate intoxication as a diagnostic challenge: Do patients always tell the truth?

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Dear editor,

Methotrexate is an effective and safe drug that has been used for many years in the treatment of psoriasis [1]. Clinical and laboratory monitoring is important for toxicity monitoring in patients. Herein, a case of methotrexate intoxication that developed after long-term uncontrolled and irregular use of methotrexate, but had diagnostic difficulties because the patient concealed this condition in her anamnesis, will be presented.

A 47-year-old female patient applied to our outpatient clinic due to psoriatic lesions. The patient, who was previously followed up at another hospital, was previously diagnosed with psoriasis and had previously used cyclosporine and methotrexate treatments alternately for 8-9 years, and was unable to tolerate the adverse effects of acitretin treatment. After the last use of cyclosporine, renal function tests showed abnormalities and acute renal failure. She stated that she was concerned about the adverse effects of biological agent treatments. The patient was informed about the adverse effects and her tests were requested to start biological treatment. In laboratory tests, serum creatinine: 4.16 mg/dl, BUN: 57 mg/dl, glomerular filtration rate: 11.93 mg/min/1.73m^2. The patient was consulted to nephrology. Her drug history was questioned in detail and she was strictly informed not to use any nephrotoxic drugs. However, the patient re-admitted a few days later with painful sores in the mouth. Antiviral treatment was started considering herpes virus infection. After the worsening of oral lesions and the development

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of new ulcerated skin lesions under antiviral treatment, the patient was questioned again with the suspicion of methotrexate intoxication (Figure 1 and 2). Although not stated in her previous history, the patient reported that she had used subcutaneous methotrexate a week ago to improve her psoriatic lesions before going on vacation and was hesitant to mention it. Laboratory tests showed pancytopenia with WBC: 1480/µl, neutrophil: 800/µl, lymphocyte: 450/µl, hemoglobulin: 8.5 gr/dl, platelet: 76000/µl. The patient was hospitalized, methotrexate was stopped, and hematology, infectious diseases and nephrology consultations were requested. Empirical intravenous antibiotic and intravenous folinic acid treatments were started. Mucocutaneous intoxication findings regressed within a week, and pancytopenia regressed within 3-4 weeks.

Oral mucositis, cutaneous erosions (especially on psoriatic plaques), and pancytopenia are characteristic clinical findings in patients who develop acute methotrexate toxicity [2,3]. Methotrexate inhibits rapidly cycling cells such as mitotically active hematopoietic, gastrointestinal, and cutaneous cells. Renal insufficiency may increase methotrexate toxicity because its elimination depends on glomerular filtration and tubular secretion [4]. In patients with psoriasis, clinicians should be alert to the warning signs of acute methotrexate toxicity, such as mucocutaneous ulcerations, mucositis, and pancytopenia, even if patients do not report methotrexate use in their history. Methotrexate should be used with caution in patients with abnormal renal function tests.

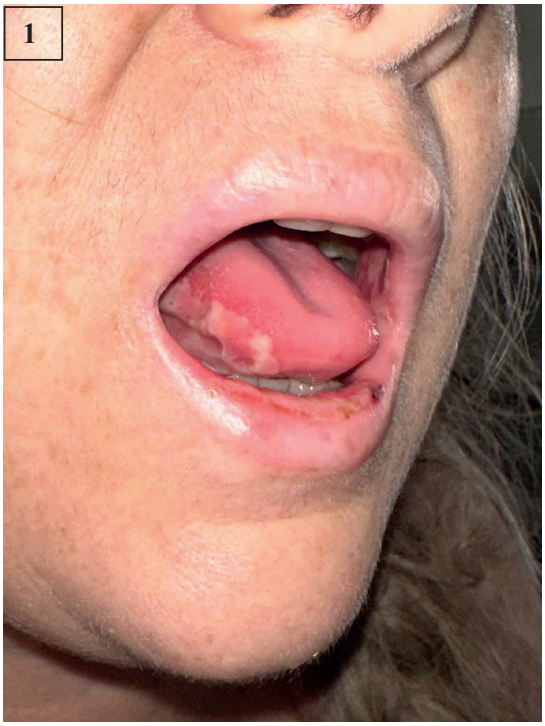

Figure 1. Mucocutaneous findings due to methotrexate intoxication.

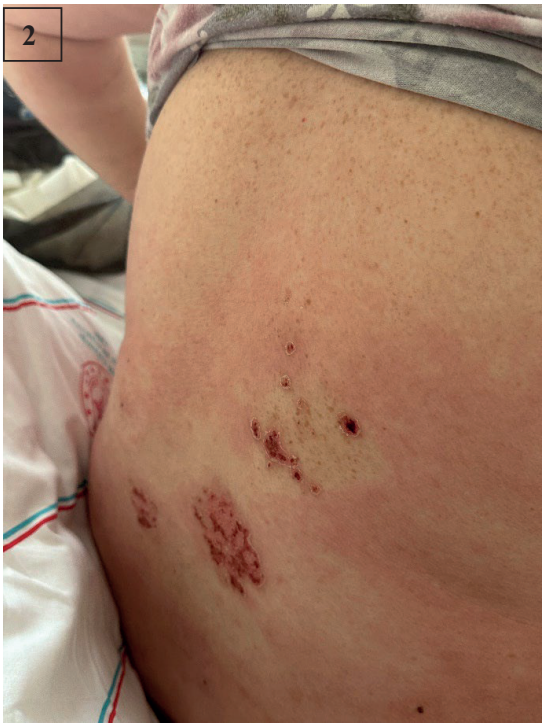

Figure 2. Mucocutaneous findings due to methotrexate intoxication.

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Conflict of interest

There is no conflict of interest.

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