CASE REPORTS

Raynaud's phenomenon induced by sulphasalazine

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Summary

Sulphasalazine-induced Raynaud's phenomenon is reported in a patient who showed no other features of a drug-induced lupus syndrome. The vascular disturbance disappeared when the drug was withdrawn on 3 occasions. A simple technique for assessing the circulatory abnormality in Raynaud's phenomenon is described.

Introduction

Oral sulphasalazine is split by colonic bacteria to sulphapyridine and 5-aminosalicylic acid, and a wide range of sensitivity reactions seen with other sulphonamides has been described with sulphasalazine (Das *et al.*, 1973). Reversible Raynaud's phenomenon with sulphasalazine has not been previously recognized. A patient is reported who developed Raynaud's phenomenon as a reversible hypersensitivity response to oral sulphasalazine; and a simple test is described for the objective assessment of the vasomotor abnormality in Raynaud's phenomenon.

Case report

A 44-year-old man with a 16-year history of ulcerative colitis affecting the left colon and rectum had suffered typical attacks of Raynaud's phenomenon for 5 years. For 8 years he had taken 2 to 4 g sulphasalazine daily. His ESR was 2 mm in the first hour, and antinuclear factor, DNA-binding antibody, cryoglobulins and cryogels were not detected. His colitis was in remission and there were no clinical features of lupus erythematosus. On stopping the sulphasalazine, his Raynaud's symptoms resolved within 8 weeks. Attacks reappeared within 2 weeks of reintroduction of the drug on 2 occasions.

An ice immersion/re-warming test on the hands was carried out to assess the Raynaud's phenomenon objectively. The first test was carried out several weeks after stopping the drug for the second time,

after his symptoms had ceased. Skin temperature was measured by an Ellab multiprobe skin thermometer on the tips of the index and middle fingers of both hands. After 30 min in a warm room to achieve stable temperatures, the hands, enclosed in thin plastic gloves, were immersed up to the metacarpophalangeal joints in ice water for 2 min. After removal from the ice water the skin temperature of the fingers returned to within 0.5°C of the pre-immersion values within 7 to 10 min. After 8 weeks' therapy with 2 g sulphasalazine daily the test was repeated. On this occasion, after the same immersion time, skin temperatures remained several degrees below the pre-immersion values for more than 30 min after immersion, indicating prolonged vasoconstriction.

Discussion

Reversible drug-related lupus-like syndromes may be caused by a number of drugs, including sulphonamides, sodium 4-aminosalicylate (Alarcón-Segovia, 1969), and sulphasalazine (Alarcón-Segovia *et al.*, 1965; Griffiths and Kane, 1977; Jaup, 1978). Raynaud's phenomenon is an unusual feature of such drug-related syndromes and, despite experiencing Raynaud's phenomenon for 5 years, the present patient showed no other features of lupus erythematosus. The occurrence of Raynaud's phenomenon while taking sulphasalazine and its disappearance after withdrawal of the drug on 3 occasions implicates the sulphasalazine in the pathogenesis of Raynaud's phenomenon in this patient. The striking difference between the ice immersion/re-warming tests before and after sulphasalazine challenge provides objective confirmation of the reversibility of the phenomenon. The vascular changes could represent the early stages of an autoimmune syndrome and withdrawal of the agent may have prevented the development of other manifestations. The only drugs recognized as causes of Raynaud's phenomenon without systemic

collagen disorder are ergot, methysergide and mercury salts. To this list sulphasalazine may now be added. However, the association between sulphasalazine and Raynaud's phenomenon is rare.

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