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# Flank Ulcer in a Patient with Primary Antiphospholipid Syndrome

A 32-year-old woman had a recurrent shallow ulcer on the flank. A biopsy specimen showed thromboses in the dermal vessels and she was found to have circulating antiphospholipid antibody with no associated systemic disease. A clean ulcer developed on the flank of a patient with primary antiphospholipid syndrome is considered to be a rarely encountered/unusual presentation of this syndrome.

Key Words : *Antiphospholipid syndrome; Skin ulcer*

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## INTRODUCTION

The antiphospholipid syndrome (APS) is an acquired multisystem disorder in which recurrent episodes of thrombosis, fetal loss, or thrombocytopenia may occur (1-5). The serologic markers for this syndrome are antiphospholipid antibodies which are represented by the lupus anticoagulant and anticardiolipin antibodies (3-5). In general, at least one clinical and one serologic feature should be present for the diagnosis and serologic features should be positive on more than one occasion, and at least 2 months apart (3-6). Several skin lesions have been found in patients with APS mostly induced by thrombotic events in cutaneous tissue.

We describe a patient with primary APS (without any features/episodes of autoimmune or hematologic disease, malignancy, infection, or drug-ingestion) (2-4) who had an isolated cutaneous ulcer on the trunk which, we believe, may be regarded as a unique finding.

## CASE REPORT

A 32-year-old woman had a scar-like shallow ulcer on her flank with minimum subjective symptoms (Fig. 1). This initially occurred as a vesicular patch and in two weeks it became an ulcerative lesion. This was a recurrent episode, starting six months ago when she experienced a similar ulcerative cutaneous lesion on her upper arm which left a hypertrophic scar. She did not have any history of trauma, infection, drug-intake, or any other suspected precipitating factors for the lesion in each occasion.

This round to oval whitish ulcerative lesion was tender and had some superficial yellow crusts. The size was approximately 4×2 cm with a clear erythematous margin. Other than this ulcerative flank lesion and hypertropic scar on her arm, physical examination found her normal. Her past medical history and family history were noncontributory.

A skin biopsy specimen showed thromboses in dermal venules with epidermal necrosis. There was no evidence of

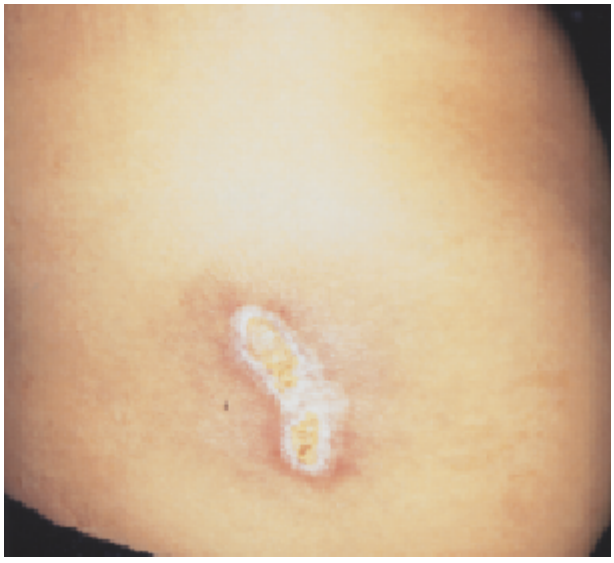

Fig. 1. A whitish shallow ulcer on the flank.

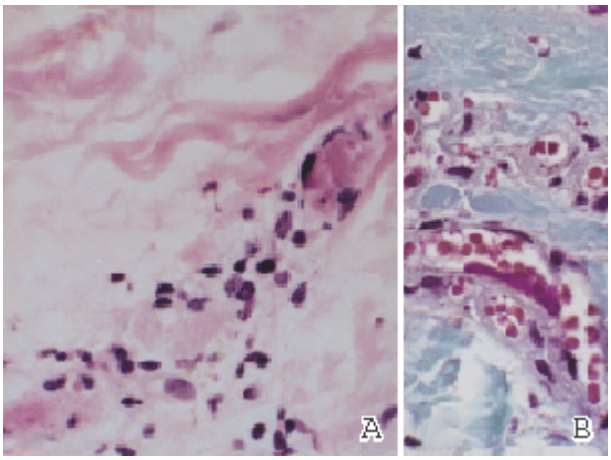


Fig. 2. Thromboses in the dermal venules are seen with mild necrosis of endothelial cells and some perivascular inflammatory infiltrates (A: H&E, ×250). On the Lendrum's fibrin staining, a red fibrin thrombus is noted in the venule (B: ×250).

leukocytoclastic vasculitis, and only mild-degree of endothelial cell necrosis and perivascular infiltrates of lymphohistiocytic cells were seen (Fig. 2A). There were some extravasation of erythrocytes present. On the Lendrum's fibrin staining, red fibrin thrombi were noted in the superficial venules (Fig. 2B). A direct immunofluorescence study revealed negative finding.

Laboratory findings, including complete blood count (platelet as well), erythrocyte sedimentation rate, serum protein electrophoresis, immunoglobulin quantitation, complement profile ($CH_{50}$, C3 and C4 concentrations), C-reactive protein, cryoglobulin, antinuclear antibody, VDRL, antineutrophilic cytoplasmic antibody, antiplatelet antibody, lupus anticoagulant, were within the normal ranges or negative. Chest roentgenogram, electrocardiogram, and the results of urinalysis and liver/kidney function tests were all normal. Serum levels of protein C and protein S were in the normal ranges (3 and 4 microgram/mL, respectively), and prothrombin time (12 sec/115%) and activated partial thromboplastin time (50 sec; controls, 20-50 sec) were also found to be normal. Antiphospholipid antibody test using a mixture of phospholipid antigens (phosphatidic acid, phosphatidyl serine, phosphatidyl ethanolamine, cardiolipins; Asserachrom APA kit, Diagnostica, Stago, France) revealed positive with 45 GPL unit, but anticardiolipin antibody test using cardiolipin antigen (Biopool Imulyse ACA kit, CA, U.S.A.) showed a negative finding.

Acetylsalicylic acid (75 mg/day) was prescribed for this primary APS patient. Up to 15 months later no further outbreak of similar skin lesions had been noted, however she still has circulating antiphosphpolipid antibodies (42 GPL unit) on a repeated examination which showed no signs/symptoms of other associated systemic or cutaneous diseases.

## DISCUSSION

Thrombosis, the main complication of antiphospholipid syndrome, can affect vessels of nearly all sizes including dermal veins or arteries; the usual histopathological finding is a bland thrombosis with minimum inflammation (1-4). Our patient, with primary APS, had a whitish shallow ulcer developed on the flank which is considered to be a rarely encountered lesion associated with this syndrome. Cutaneous ulcers can be seen in patients with APS which often show sharp margins as seen in this case, however, they usually occur on the lower legs (3-6).

In patients with APS, cutaneous manifestations are common such as livedo reticularis, thrombophlebitis, levedoid vasculitis, cutaneous necrosis, leg ulcer, necrotizing purpura, peripheral gangrene, and so forth (3-6). Among patients with skin lesions, approximately 41% had skin signs as the first symptom of APS (7). It is important to recognize this association because nearly 40% of the patients with skin lesions have multisystem thrombotic phenomena such as stroke/cerebral ischemia, and other vascular occlusion symptoms in the liver, adrenal gland, kidney, lung, heart, and eye, in the course of the disease (7).

Antiphospholipid antibodies are a heterogeneous group of circulating autoantibodies with different specificities, primarily directed against negatively charged phospholipid compounds in cell walls including platelets, erythrocytes and endothelial cells (which may also react immunologically with cardiolipin used in the VDRL test for syphilis) (1, 5, 6). The exact mechanism by which these antibodies act to produce thrombosis in vivo is unclear. There is no agreement on the therapeutic management of patients with APS after a thrombotic event. Effective drugs for the prevention of future thrombotic events in primary APS are aspirin, dipyridamole, heparin, or warfarin, used in combination or alone, with appropriate doses (3, 5, 8). If superficial thrombosis is the only clinical manifestation, a low dose of aspirin alone may be sufficient as we used with this patient. The aspirin may help prevent the recurrence of thrombosis in this syndrome with an unpredictable course.

An awareness of the cutaneous manifestations associated with APS, together with the cutaneous histopathological features of this syndrome should facilitate early accurate diagnosis and the institution of appropriate therapy.

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