

# Adult Still's Disease Resembling Drug-related Scratch Dermatitis

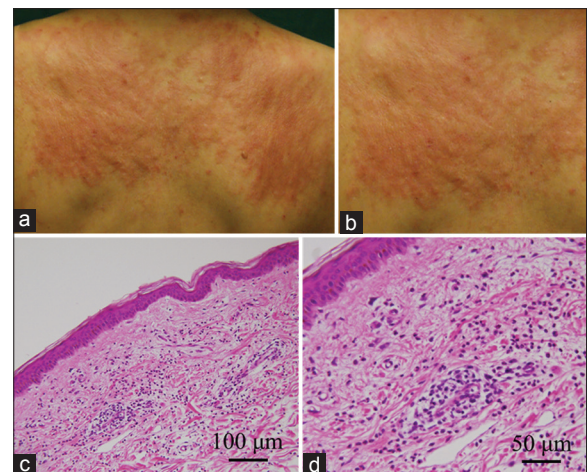
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A 73-year-old woman without any pertinent history was admitted to the hospital due to remittent fever with erythema. She showed itching and linearly arranged erythema on the chest, back, and abdomen [Figure 1a and b]. As she had been taking daily cefditoren pivoxil for the 4 days before her admission, she was diagnosed as having drug-related scratch dermatitis, and the antibiotic treatment was stopped. Her fever remained. Laboratory data showed elevated levels of white blood cells (14,800/ $\mu$ L, normal range 4000–7000) and liver enzymes such as aspartate aminotransferase (AST) 138 IU/L (normal range 5–40), alanine aminotransferase 97 IU/L (normal range 5–35), and ferritin (17469.5 ng/mL, normal range 5–152). A blood culture was negative for bacteria. A computed tomography examination revealed mild mediastinal lymphadenopathy of the cervicum to the abdomen. Biopsies of mediastinal lymph node, bone marrow, and skin were performed, and all were negative for the infiltration of lymphoma cells or any malignancy. As the patient's fever and erythema remained, a biopsy of the skin erythema was performed [Figure 1c and d]. The histopathological diagnosis was non-specific interface dermatitis. As infection and malignancy were denied, she was finally diagnosed as having adult Still's disease (ASD) based on the high ferritin level.<sup>[1-3]</sup> Prednisolone (1 mg/kg/day) was administered, and her fever and erythema disappeared within 1 week. The prednisolone was gradually tapered, and the patient has maintained in complete remission.

ASD is an inflammatory disorder characterized by daily fever, arthritis, and evanescent rash.<sup>[1,2,4,5]</sup> The typical skin rash of ASD is a salmon-colored non-pruritic macular eruption that disappears during afebrile periods. The rash predominantly involves the trunk and extremities. However, in our patient's case, the erythema of ASD was itchy so that

it was indistinguishable from drug-related scratch dermatitis. And also, the erythema sustained unrelated to fever. The diagnosis of ASD is partly a diagnosis of exclusion and should be distinguished from other disease which could show similar symptoms and findings.<sup>[2]</sup> Among the laboratory abnormality seen in ASD, ferritin has been suggested to be a good serologic marker not only for diagnosis but also for monitoring the response to treatment.<sup>[3,6]</sup> In this case, we finally came to the diagnosis of ASD by excluding infection, other autoimmune diseases, drug reaction, and malignancy (mainly malignant lymphoma). It is important to realize that a variety of dermatological symptoms could be observed in ASD.<sup>[7,8]</sup> And also, we should be aware that majority of



**Figure 1:** Photos of skin lesion in this patient, a 73-year-old woman. (a) Low-power field. (b) High-power field. (c and d) Histological staining (hematoxylin and eosin staining) of the biopsy specimen of the patient's skin erythema. (c) Low-power field,  $\times 200$ . (d) High-power field,  $\times 400$

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the patients with atypical cutaneous lesion require more aggressive treatment.<sup>[7,8]</sup> In conclusion, recognition of the clinical variant is crucial for the early diagnosis of ASD.

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