

A Case of Nail Psoriasis-associated Psoriatic Arthritis Successfully Treated with Adalimumab.

Dear editor,

We report on a case of psoriatic arthritis associated with nail psoriasis that was successfully treated with adalimumab. A 51-year-old Japanese woman presented with joint swelling and pain. She had noticed fingernail deformity five years previously. Swelling and pain of the 2nd and 4th distal interphalangeal (DIP) joints of the left hand had occurred about one year earlier, and had worsened three months before she attended our hospital for assessment. On examination, there was swelling and tenderness of the DIP joints of both hands. There were multiple hyperkeratotic punctate depressions on the nail plates of both hands, as well as scales and onycholysis with shortening of the nails (Figure 1), but her trunk and limbs showed no changes specific to psoriasis. Laboratory tests revealed elevation of C-reactive protein (CRP) to 1.13 mg/dl and erythrocyte sedimentation rate to 38 mm/h. However, rheumatic antibodies were negative, including antinuclear antibodies, rheumatoid factor, and anti-cyclic citrullinated peptide antibodies. Her



Figure 1. Magnified nail findings at initial examination: Multiple hyperkeratotic punctate depressions, onycholysis, shortened nails, and swelling of the DIP joints of the 3rd and 5th fingers.

human leukocyte antigen (HLA) status was A2, A26, B39, and B61. A plain X-ray film of the fingers revealed erosion and narrowing of the DIP joints of both hands. A diagnosis of psoriatic arthritis (PsA) associated with nail psoriasis was made from these joint and nail findings. Oral methotrexate (MTX) was started at 4 mg/week (maximum dose: 10 mg/week) for her arthritis. Although her joint symptoms improved temporally, nail symptoms did not. CRP also decreased, but it increased again after 16 months. Recurrent synovitis was diagnosed and treatment with adalimumab (40 mg biweekly) was started. CRP improved rapidly, and her nail lesions resolved completely after five months of adalimumab therapy (Figure 2). Currently, inflammation is suppressed and her nail deformity has not recurred.

PsA has been reported to affect from 5% to 42% of patients with psoriasis (1,2). Involvement of the nails is more frequent in patients with PsA than in those without PsA, and nail lesions with or without other skin lesions have been observed in about 80% of patients with PsA (8). However, there has only been



Figure 2. Nail findings 5 months after treatment with adalimumab: All lesions on the nail plates have disappeared.

one previous report of PsA with psoriatic eruptions localized to the nails, as in our case (3). It has been reported that PsA is related to specific HLA types. While ankylosing spondylitis has a strong relation with HLA-27, it has been reported that HLA-B13, B17 (including the subtypes B38 and B39), Cw6, Cw7, DR4, and DR7 are relevant to PsA (4,5). In addition, relation of PsA with HLA-A2 has been reported in Japanese patients (6,7). Our patient had an increase in both HLA-A2 and B39. Recently, it has become evident that PsA often has a chronic progressive course with early bone destruction, and causes marked impairment of the quality of life (6,7). A randomized double-blind trial of methotrexate (MTX) demonstrated it to be an efficient treatment only for arthritis in patients with psoriasis (8). In our patient, PsA was temporarily improved by MTX, but her punctate nail depressions and onycholysis did not resolve. Therefore, we switched to adalimumab to treat both PsA and nail lesions. Adalimumab was not only shown to improve skin eruptions but also improved joint symptoms and inhibited the progression of joint destruction in a placebo-controlled double-blind trial (9). Tumor necrosis factor inhibitors have only been used to treat PsA for a few years. Treatment with these drugs must be performed effectively and safely.

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