

## Yellow Nail Syndrome Associated with Penicillamine Therapy

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A patient is described in whom the nail changes of the yellow nail syndrome developed whilst she was taking penicillamine. Stopping the drug was associated with resolution of the nail changes. The yellow nail syndrome was first described in 1964 (Samman and White), but the cause is still unknown. Impaired lymphatic drainage is thought to be a factor in the pathogenesis, and lymphoedema is often an accompanying feature. We describe a case in which nail changes, typical of those described in the yellow nail syndrome, occurred in a patient treated with *d*-penicillamine, and in whom the nails reverted to normal on withdrawing the drug. (Received March 15, 1983.)

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### CASE REPORT

The patient was a 26-year-old female who had been diagnosed in January 1980 as suffering from seropositive rheumatoid arthritis. Because of the aggressive nature of her disease she was started on *d*-penicillamine in September 1980, initially at a dose of 750 mg daily, increasing in March 1981 to a dose of 1.25 g daily. This therapy was associated with asymptomatic improvement of her arthritis.

In September 1981 she complained of yellow discolouration and thickening of all her nails. She also noted that her nails had appeared to stop growing. On examination, the nails of her fingers and toes were yellow, thickened and showed transverse ridging. The appearance was thought to be compatible with diagnosis of the yellow nail syndrome. There was no lymphoedema and chest X-ray results proved normal.

In October 1981 the patient was noted to have haematuria and proteinuria and further therapy with penicillamine was stopped. Stopping the drug was associated with an increased rate of growth of her nails, and the yellow discolouration began to grow out. The illustration (Fig. 1) shows the nails of the right hand in April 1982, 6 months after stopping penicillamine. By July 1982 the appearance of her finger and toe nails was normal.

### DISCUSSION

The discolouration of the nails in the yellow nail syndrome is thought to be a consequence of their slow rate of growth. This in turn is probably secondary to impaired lymphatic drainage, the clinical features appearing when the lymphatics are stressed by factors such as infection, inflammation or hypotaxis (3).

Yellow nail syndrome has been described in association with rheumatoid arthritis by Mattingly & Bossingham (2). These authors suggest that rheumatoid arthritis may be a factor in overloading an already deficient lymphatic system, thus producing the changes of yellow nail syndrome.

The patient described had rheumatoid arthritis. However the temporal relationship between stopping penicillamine and the reversal of the nail changes suggests that the drug may have been responsible in this case. A similar case has been reported by Lubach & Marghescu (1), again in a patient with polyarthritis. It may be that the presence of arthritis was the important aetiological factor.

The question of whether penicillamine therapy may be responsible for the changes of yellow nail syndrome is at present unresolved. Further clinical observation is required, particularly in patients treated with penicillamine for non-inflammatory disorders and for diseases not affecting the fingers.



Fig. 1. Nails of the right hand 6 months after stopping penicillamine.

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#### Photo-onycholysis Due to Tetracycline-hydrochloride

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A case of monosymptomatic photo-onycholysis due to tetracycline-hydrochloride is reported. A 40-year-old woman with rosacea had been treated with tetracycline-hydrochloride (Achromycin®) 250 mg daily for 3 years. In the summer period after one month of intensive sun exposure she developed painful bullae under the nails. **Key words:** Photo-onycholysis; Tetracycline-hydrochloride; Phototoxic reaction. (Received February 28, 1983.)

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The tetracycline group of antibiotics are well-known photosensitizers. In 1961 Orentreich et al. (8) reported photo-onycholysis in 7 out of 28 patients, who simultaneously suffered from a photosensitivity reaction following ingestion of demethylchlortetracycline. In 1970 Frank et al. (3) described similar symptoms in patients treated with tetracycline-hydrochloride and doxycycline. Apart from onycholysis these patients suffered from cutaneous