

Early Stage Onychomadesis Presenting as Painful Swellings of Proximal Nail Folds

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Two Korean men complained of painful erythematous swellings of the proximal nail folds. When we removed the overlying nail plates, we observed new ones growing under the old ones. These painful swellings disappeared after the affected nails were extracted. We found typical onychomadesis in another finger during the follow-up, suggesting that the initial condition marked the onset of onychomadesis. Because both patients had plaster casts removed recently and histories of trauma, it was hypothesized that trauma might be responsible for this peculiar condition.

Onychomadesis is a separation of the proximal nail plate from the nail matrix and nail bed.¹ As the new nail plate forms, the original distal one is pushed forward and later sheds spontaneously. We report 2 cases of early stage onychomadesis presenting as painful erythematous swelling of proximal nail folds. These cases appear to be related to previous trauma or application of plaster casts. All the affected nails healed after nail extraction.

Case Reports

Patient 1—A 15-year-old Korean boy presented with painful swelling of the proximal nail folds, which arose in the last month on his third and fourth fingers (Figure 1). There was no personal or family history of nail disease or trauma. The patient sprained his left wrist 2 months previously and experienced tingling and tightness of the immobilized extremity 2 months after the application of a plaster cast. Painful swelling



Figure 1. Painful erythematous swellings of the proximal nail fold on left third and fourth fingers of patient 1.

occurred a few days before removal of the plaster cast. His family doctor prescribed itraconazole for 15 days, but there was no improvement.

Because the initial diagnosis was subungual exostosis or paronychia, the affected nails were extracted for biopsy. Removal of the nail plates revealed a new nail plate forming under the extracted one (Figure 2). Nail extraction eliminated the pain and swelling, and normal growth of the underlying nails was observed after 3 months. At that time, another onychomadesis was found on the patient's index finger (Figure 3).

Patient 2—A 24-year-old Korean man complained of painful swelling of the left index finger that had persisted for one month. There was no personal or family history of nail disease or trauma. He experienced an injury of the left ulnar nerve 2 months before and underwent surgical reinnervation of the detached nerve. The patient wore a plaster cast for one month, and painful swelling began a few days

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Figure 2. After extraction of the nail plates, a newly grown nail was seen under the extracted nail plate of patient 1.



Figure 3. Painful swelling disappeared after nail extraction, with normal growth of underlying nails after 3 months. At that time, another onychomadesis was observed on the index finger of patient 1.

after it was removed. Removal of the affected nail revealed a new nail plate growing under the extracted one. Two months after the extraction, the affected nail grew well, and there was no pain or swelling.

Comment

Onychomadesis, a spontaneous separation of the proximal nail plate from the nail matrix, may be associated with some systemic or skin diseases.^{1,4} Both cases were difficult to diagnose as onychomadesis. The only symptoms observed were erythematous swelling with pain and tenderness, which is similar to paronychia or protrusions from a subungual tumor. The presence of newly growing nail plates after extraction, normal nail growth after extraction, and appearance of onychomadesis in another finger of patient 1 suggested that the underlying disorder was onychomadesis. Because the time for full growth of a fingernail is about 3 months, the length of the new nail indicated that it had been growing for about one month. This also suggested cessation of nail growth for some time before the new nail began to form. Considering the trauma histories of both patients, we concluded that cessation of nail growth was related to trauma.

Stage 1 of reflex sympathetic dystrophy shares similar clinical features with onychomadesis, such as

erythematous swelling and pain.^{5,6} However, the pain associated with reflex sympathetic dystrophy is usually more intense and persistent and may progress to show cyanosis, hyperhidrosis, and other dystrophic skin changes.

After 4 years, both patients continue to show normal regrowth and appearance of all fingernails. We suggest that, in the 2 cases presented, nail plate extraction was sufficient as both diagnosis and treatment.

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