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**COXSACKIE VIRUS-ASSOCIATED ONYCHOMADESIS IN CHILDREN:
 A CLINICAL-DERMOSCOPIC PRESENTATION**

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ხათუნა კუდავა

კოქსაკის ვირუსთან ასოცირებული ონიქომადეზი ბავშვებში:

კლინიკურ-დერმოსკოპული პრეზენტაცია

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რეზიუმე

კოქსაკის ვირუსთან ასოცირებული ონიქომადეზი პედიატრიული დერმატოლოგიისთვის აქტუალური პრობლემაა. შემთხვევა წარმოადგენს სწორედ ასეთი გართულების კლინიკურ-დერმოსკოპულ პრეზენტაციას 4 წლის პაციენტში. კოქსაკის ვირუსით გამონეული ხელის, ფეხის და პირის დაავადების დასრულებიდან ერთი თვის შემდეგ პაციენტს დაეწყო მნიშვნელოვანი ცვლილებები ხელების მტევნების ყველა და ტერფების პირველ და მეორე ფრჩხილებზე. ფრჩხილის ფირფიტა მოცილდა მატრიცას, ხოლო შუა და დისტალურ მიდამოებში მიმაგრებული დარჩა ფრჩხილის სანოლზე. პაციენტს არ ჰქონდა ფრჩხილების და თითების ტრავმის ისტორია, არც ფრჩხილებთან დაკავშირებული მანე ჩვევები და არც თანმხლები სისტემური დაავადებები. მიკროსკოპული გამოკვლევით ონიქომადეზი არ დადასტურდა.

დერმოსკოპული გამოკვლევით შეფასდა ონიქოსკოპული მახასიათებლები. დაავადების პროგრესი მუდმივად კონტროლდებოდა. პაციენტის მდგომარეობა შეფასდა სამი კვირის შემდეგ, რომლის განმავლობაშიც ჯანმრთელი ფრჩხილის ფირფიტის ზრდასთან ერთად დაზიანებული ფრჩხილის ფირფიტა მიმაგრებული რჩებოდა ფრჩხილის სანოლზე. პაციენტს არ აღენიშნებოდა სუბიექტური სიმპტომები. ფრჩხილების ცვლილებები ანუხებდა მხოლოდ როგორც კოსმეტიკური დეფექტი. ორი თვის შემდეგ პაციენტი კლინიკურად გამოჯანმრთელდა და ფრჩხილის ფირფიტები სრულად აღდგა ყოველგვარი სტრუქტურული დარღვევების გარეშე. კოქსაკის ვირუსთან ასოცირებული ონიქომადეზი, მისი მნიშვნელობისა და განვითარების თავისებურებების გამო, კვლავ რჩება პედიატრიული დერმატოლოგიის აქტუალურ საკითხად.

Introduction: Children's nail injuries are a current concern in pediatric dermatology. Occasionally it is a standalone issue, and other times it necessitates a general diagnosis. The diagnosis and treatment of nail diseases such as onychomycosis, melanonychia, trachyonychia, onychomadesis, and nail pitting are particularly crucial for pediatric dermatology [1]. We might consider onychomadesis as both an infection-related and a non-infection-related issue because onychomadesis is linked to a number of disorders, including Kawasaki disease, autoimmune disease, critical illness and drugs [2,3]. In children's dermatology infection-related forms are more common. An important complication of hand, foot, and mouth illness is onychomadesis. Cases of outbreaks have been reported in a several countries including northern Greece; Hubei province, China; Granada; Spain [4,5,6,7,8,9].

Case presentation: A case report describes infection-related onychomadesis in a 4-year-old patient. The Coxsackie virus infection, which causes hand, foot, and mouth disease, developed with specific symptoms. For three days, the patient had a fever accompanied by general discomfort and vomiting. Three days after the onset of symptoms, a typical rash began to appear on the palms of the hands and soles of the feet. A vesicular rash surrounded by a red halo appeared on the palms and soles, which disappeared within a week. After receiving only symptomatic treatment, the child made a full recovery within nine days, and the acute phase was completely resolved. One month after the end of the illness, the patient began significant changes in their fingernails and toenails. Pathological changes were observed on all fingernails and the first and second toenails. The nail plates were detached from the matrix, and in the middle and distal areas, they adhered to the nail bed. The patient had no history of local trauma to the nails and fingers, no detrimental nail-related habits, and no underlying systemic diseases. A microscopic

examination was performed to rule out a fungal infection, and onychomycosis was not confirmed. The patient was then evaluated using dermoscopy to examine the onychoscopic findings. Dermoscopy revealed proximal separation of the nail plate from the nail matrix, as well as structural changes to the bordering portion of the nail plate: vertical breakages, yellowish-gray opaque and brittle patches, and dotted hemorrhages. No changes were observed in the distal portion of the nail plate. Finally, the diagnosis was established based on the patient's medical history, a physical examination of the skin and its appendages, and the dermoscopic findings.

Dermoscopic presentation of onychomadesis



The patient's progress was monitored continuously. The patient's condition was evaluated after three weeks, during which healthy nail plates began to grow and the damaged nails were shed. During this time, the damaged, removable nail plates remained attached to the nail bed. The patient experienced no pain or other subjective symptoms, but was bothered by the changes in the nails as a cosmetic issue. After two months, the patient's clinical recovery became evident and the nail plates were completely restored without any structural abnormalities.

Clinical presentation of onychomadesis



Discussion: Onychomadesis is characterized by separation of the nail plate from the matrix with persistent attachment to the nail bed and often, but not always, eventual shedding [3]. Onychomadesis following hand-foot-mouth disease often develops as an acute, rapidly progressive process. According to various studies, the onset of onychomadesis is different: The median number of days between hand-foot-and-mouth disease and onychomadesis was 39,6; 45; 52 [4,5,6]. In this particular case, this time was determined to be 39 days. Anamnesis data and microscopic examination are necessary to rule out fungal disease. Dermoscopy is an important investigation for the general evaluation of nails and is necessary for diagnosis [10,11]. In our case, onychoscopy accurately assessed the structural components of the nails and excluded other pathologies. Observing the dynamics of a particular case showed us that onychomadesis associated

with infection was a rapidly progressing process. The structural changes of nails required some time for recovery, healthy nails grew in parallel with the gradual, painless removal of damaged plates.

Conclusion: Although data on onychomadesis associated with coxsackievirus are not so scarce, it remains a topical issue in pediatric dermatology due to its importance and developmental features.

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SUMMARY

A case report describes infection-related onychomadesis in a 4-year-old patient. The Coxsackie virus infection, which causes hand, foot, and mouth disease, developed with specific symptoms. One month after the end of the illness, the patient began significant changes in their fingernails and toenails. Pathological changes were observed on all fingernails and the first and second toenails. The nail plates were detached from the matrix, and in the middle and distal areas, they adhered to the nail bed. The patient had no history of local trauma to the nails and fingers, no detrimental nail-related habits, and no underlying systemic diseases. Finally, the diagnosis was established based on the patient's medical history, a physical examination of the skin and its appendages, and the dermoscopic findings.

The patient's progress was monitored continuously. After two months, the patient's clinical recovery became evident, and the nail plates were completely restored without any structural abnormalities. Although data on onychomadesis associated with coxsackie virus are not so scarce, it remains a topical issue in pediatric dermatology due to its importance and developmental features.

Keywords: coxsackie virus, onychomadesis, dermoscopy, children, clinical case

