

## Post covid nail changes: A case report

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### Abstract

COVID 19 is notoriously known for its post-viral syndromes which are still being studied extensively. Dermatological complications, although they do not have a drastic effect on the health and are rare, are found to be linked to COVID. This case report highlights a 60 year old female who presented with POST COVID oncholysis, after exclusion of other causes.

### Keywords

COVID-19; Dermatology; Oncholysis; Case Report.

### Introduction

Although Corona virus has been in existence for centuries, its complex pathology is still being studied by scientists. After the World Health Organization declared a global pandemic in spring of 2020, the Corona virus became a household name. Long term effects related to the virus are in plenty some of which being chronic fatigue and neurological disturbances [1]. Dermatological conditions in association with the virus, although not severe are being reported in numerous patients, across the globe. A study done in North Italy, revealed that 20% of patients hospitalised displayed dermatological symptoms, like rashes, vesicular lesions and skin eruptions, similar to that of a virus infection [2]. Due to the fact that some nail manifestations of SARS-CoV-2 may occur months after the acute infection, they have often been neglected. This case highlights an important dermatological finding - oncholysis related to COVID.

### Case Report

An apparently normal 60-year-old woman presented to the outpatient department with the unusual symptom of complete, painless detachment of her toe nails. In the beginning, it only affected one toe nail, but eventually, all of them were affected and in a span of 1 week, all toe nails had detached spontaneously. She did not report any history of trauma to the nails or feet nor did she notice any discharge, odour or discoloration of her nails.

One month prior to her current symptoms, she had tested positive for COVID-19 by RT-PCR test. It was determined that she had a mild infection with only loss of taste and smell and no other significant symptoms for which she was treated symptomatically at home and recovered well. She has no significant medical or surgical history and was currently not on any medications.

On physical examination, all toe-nails exhibit onycholysis in various stages. No discoloration, discharge or local signs of infection or inflammation were present. Sensation was intact in both feet. Fingernails were normal to inspection. Her head to toe, vitals and systemic examination proved to have no abnormalities. No signs or family history of psoriasis were elicited. No evidence of sub-ungual hematomas was noted.

On presentation, she was worked up for all possible causes of onycholysis. A hemogram, metabolic panel, Vitamin D levels and fungal studies proved to be normal except for a pre-diabetic state evidenced by her HBA1c level [6.4%].

Any unattached nail was clipped off and she was advised to maintain good hygiene of feet. She continued to remain in follow up and post a month, the normal nails grew back on their own.



**Figure 1:** Initial stages



**Figure 2:** After 1 day

## Discussion

Onycholysis, which is fairly common, is a result of many underlying disorders like vitamin D deficiency, thyroid hormone imbalances, trauma, and local conditions of the nail like fungal infections and psoriatic nail disease but the correlation between systemic disease and separation of the nail has been found to be rare [3].

Nail changes, a reflection of a myriad of systemic illnesses, are being exceedingly reported in recent times. Similarly, COVID 19 has also been known to be associated with nail changes. To state a few, the half moon shaped, red colour discoloration of finger nails has been reported in a few patients. It is thought that it is possibly owing to an inflammatory immune response and a procoagulant state in these patients [4].

In a study done on health care workers, it was determined that their nails exhibited chloronychia, a bluish green discolouration of nails owing to infection by *Paeruginosa*, which inhabits humid and warm environments and the long hours of a gloved health care worker being favourable to its growth [5]. There have been reports of Mees lines found on toe-nails. Fernandez et al, observed transverse leukonychia in all ten fingernails in a previously healthy 57-year-old Hispanic male with SARS-CoV-2 bilateral pneumonia confirmed by PCR [6].

This case describes an apparently normal female, who after 4-5 weeks of a mild COVID infection presents with onycholysis which is possibly a Post COVID manifestation since all other probable causes have been ruled out.

Thus we come to understand that nail-changes, although rare, are probably under-reported or missed by clinicians because of the varied presentation and it is vital we improve our knowledge of such occurrences.

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