

Traumatic nail split

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Summary

In nail split, the nail plate is divided into two parts. Trauma involving the nail matrix, the generator of the nail plate, can result in nail plate splitting which may take some months to become apparent. Photographic documentation of this condition in the literature had hitherto been lacking.

Keywords: nail, nail disorders, nail repair, trauma

Introduction

Nail split is characterized by the division of the nail plate into more than one part. The nail plate develops mostly from the rapidly dividing keratinizing cells of the nail matrix, which is embedded below the proximal nail fold. It rests on and is firmly attached to the vascular nail bed and because of its translucency and the visibility of the vascular nail bed through it, it looks pinkish.¹ Trauma, even a minor trauma that cannot be recalled by the patient, may sever the nail matrix and result in separated out growth.²

Case report

A 22-year-old male presented with splitting of the nail plate of the right little finger. The patient had sustained trauma to the dorsal aspect of the distal phalanx of the little right finger at the age of 10 years. Medical attention was given at the time. There was no history of skin disease. On examination (Fig. 1), the nail plate was longitudinally split into two overlapping parts. The lower part was over-curved and the upper part was concave. The upper part showed transverse striations. The overlapping area of the upper part appeared whitish. The cuticles of the two parts were present. Potassium hydroxide microscopic mounts from the nail parts and fungal culture were negative. Plastic repair was advised but patient did not attend.

Discussion

Disturbances of the nail matrix such as destruction, atrophy, hypertrophy and abnormal keratinization are reflected in the nail plate.¹ Trauma is another important cause of deformities of nail plate. It may affect the nail plate directly or injure the nail matrix.

In the case presented here it is most probable that splitting of the nail plate resulted from division of the nail matrix due to trauma. The divisions of the nail matrix were displaced leading to two overlapping nail out-growths, each with its own nail cuticle. Pressure from the lower out-growth led to the concavity and striations of the upper one. The overlapping area of the upper out-growth lost its attachment to the nail bed and so appeared whitish.



Figure 1 Traumatic nail split showing overlapping of the split.

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Splitting of the nail plate is not always apparent at the time of injury and may remain unapparent for months.² Therefore, it is extremely important to consider it in patients presenting with nail injuries. Plastic repair is still possible at later dates.^{3,4}

Conclusion

Nail matrix injuries may result from trauma to the digits.

References

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