Case Report

Melanonychia striata: a case report

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ABSTRACT

Melanonychia striata longitudinalis is a pigmented band in the long axis of the nail. The discoloration occurred because of increase of melanin in the nail matrix. In most cases, especially in children, melanonychia striata is a benign condition. In this case report a 12-years-old male with melanonychia striata. Longitudinal excision was performed with histopathology examination to rule out malignancy and further management.

Keywords: Melanonychia striata, Nail matrix, Benign

INTRODUCTION

Melanonychia striata or longitudinal melanonychia is an abnormal color of nail plate with pigmented (dark-brown tan black) band running in longitudinal axis of the nail. This discoloration of the nail plate is caused by increased melanin production because of increased quantity or function melanocytes in the nail matrix. Bleeding and trauma can cause increased melanin production, besides proliferation and hyperplasia of melanocyte. (A) Prevalence of melanonychia striata ranges from 1.4% in white populations and up to 77% in black populations. (B) Early detection and examination such as histopathology is needed to rule out malignancy in melanonychia striata. In this case report, we presented a case of melanonychia striata in a 12-years-old male.

CASE REPORT

This 12-years-old male patient presented to the Surgical Oncology Clinic of Prima Medika Hospital with one-year history of discoloration of his left ring finger nail (Figure 1).

Figure 1: Melanonychia striata on the left ring nail.

His nail plate turning brownish-black progressively, with no pain or swelling was present. There was no history of trauma and no discharge or itching. The patient was in good condition without taking any medication. There was no history of melanoma, melanonychia striata or other disease of the nail, and other skin diseases in the family. Dermatological examination revealed a longitudinal hyperpigmentation overlying nail plate on left ring nail
with 1 mm width. Proximal nail fold, hyponychium, and periungual area were normal. There was no skin discoloration around the nail. There was no regional lymphadenopathy. Diagnosis of melanonychia striata was made based on physical examination and histopathology result. Specimen for histopathologic examination was obtained from excision of the nail plate and matrix. The result of histopathology showed no proliferation of melanocytes or malignant melanoma. Diagnostic procedures and therapeutic management of this case was done by longitudinal excision of the nail with melanonychia striata.

**DISCUSSION**

Melanonychia striata or longitudinal melanonychia is a presence of pigmented (brown or black) longitudinal line along nail plate. Fingernails are affected more often than toenails and more common in the thumb. The discoloration of the nail is of uniform width, whereas melanoma of the nail apparatus is generally wider at the base, tapering distally, and may cause knicking of the distal nail plate. Melanonychia striata may be caused by trauma; medication use [eg. minocycline (Minocin), zidovudine (Retrovir), bleomycin, antimalarials]; and bacterial, fungal, or human immunodeficiency virus infections.\(^1,3\)

Some cases of melanonychia striata can become subungual melanoma. To exclude malignancy some approaches should be taken such as wait and see or longitudinal excision (chosen for this case). Partial nail avulsion is performed in this case to reduce complications such as infection, pain during activities, and bleeding.\(^4\) Histopathological finding in this case did not show any proliferation of melanocyte. Increased melanocytes function rather than hyperplasia might have been the reason of discoloration of the nail. Although no malignancy was found, it is important to perform monitoring and evaluation because of in some cases malignancy lesion can still occur.\(^5,6\)

**CONCLUSION**

Melanonychia striata is an abnormal change of nail pigment, mostly as an early stage of subungual melanoma. Thus, early detection such as excision biopsy must be done to rule out malignancy.

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