

# Trauma or Tumor? The Nail Splay Sign

Carina Crouch, Suresh M Anandan\*, Isam Al Basri, Wexham Park Hospital

Department of Plastic Surgery, Wexham Park Hospital, Wexham, UK

## DEAR EDITOR

We describe a 90 year old lady presented with a 2 week history of a nonhealing and bleeding lesion on her right 2<sup>nd</sup> toe, on a background of one year's history of chronic infection. The patient had not responded to oral antibiotics and was initially managed with fusidic acid and hydrocortisone acetate cream applied with daily to alternate-day dressings. A history of trauma as the cause of the lesion was given by the patient and her daughter. The nail was thought to be avulsed due to the injury and she was reviewed regularly and one month later a reddish, elevated lesion was noted at the apex where the nail had begun to splay.

A shave biopsy of the fleshy lesion was performed. Histology revealed nodular malignant melanoma, involving both peripheral and deep margins.<sup>1</sup> A staging CT scan showed no distant metastases and the patient underwent ray amputation at the metatarso phalangeal joint. Examination of this specimen confirmed Breslow thickness 4.1mm with infiltration of subcutaneous tissue and underlying bone (Clark level 5). There was no angiolymphatic or perineural invasion. The patient continues to be reviewed 3 monthly.

A history of trauma and delayed diagnosis in toe melanoma has been reported in previous larger studies.<sup>2,3</sup> The nail splay seen in this case is due to the growth tenting the nail bed and causing the nail to diverge at that point.<sup>4</sup> A similar but opposite effect is often seen as nail grooving in mucous cyst of the distal interphalangeal joint. This case has taught us that a history of trauma and a quick glance at the nail in a busy clinic could lead one to believe it's a traumatic avulsion, but the nail splay or any nail deformity warrants a closer and thorough inspection.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

## KEYWORDS

Tumor; Melanoma, Nail

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### \*Corresponding Author:

Suresh. M. Anandan, MD;  
Department of Plastic Surgery,  
Wexham Park Hospital,  
Wexham, SL2 4HL, UK

**E-mail:** Suresh.Anandan@hwph-tr.nhs.uk

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