

NAIL TREPHINATION VERSUS NAILBED REPAIR IN SUBUNGUAL HAEMATOMA: DOES THE METHOD OF TREATMENT AFFECT OUTCOME?

¹Hue CC, ¹Khoo SS

¹Orthopaedic Surgery Department, University Malaya, Kuala Lumpur, Malaysia.

INTRODUCTION:

Subungual haematoma with intact nail and nail margins is common nail injury which may implies injury to the underlying structures, i.e. the nail bed with or without fracture of the distal phalanx. Current practice for this injury is removing the nail plate, explore and repair the nail bed laceration (nailbed repair) if the subungual haematoma is more than 50% of the nail surface. Recent studies have suggested that simple trephination of the nail in an otherwise uncomplicated case of subungual haematoma gives good cosmetic and functional results. However, these studies are limited and to our knowledge there are no randomized controlled study to date. Hence, our prospective, randomized, controlled study was performed to compare the functional outcome and nail appearance of nail trephination and nailbed repair technique to treat subungual haematoma with intact nail plate and nail margins.

MATERIALS & METHODS:

Our study only includes subject with simple subungual haematoma with intact nail plate and nail margin, which was prospectively recruited from emergency department in UMMC. Study subjects are randomly assigned into two treatment arms (nailbed repair and nail trephination) and will follow up in 2 weeks, 1 month, 3 months, 18 weeks and 6 months post treatment. Final assessment of the nail appearance will be done by 2 independent blinded assessors.

RESULTS:

We found that no significant difference in final outcome (functional outcome and nail appearance) between both treatment groups. Both groups showed good functional outcome and nail appearance. However, procedural time was significantly longer in nailbed repair as compared to nail trephination. Besides that, we

found that nailbed repair was significantly more difficult to perform and cost more.

Figure 1: Pictures of nail trephination (a) before trephination, (b) after trephination, (c) 2 weeks, (d) 1 month, (e) 3 months, (f) 18 weeks, and (g) 6 months post trephination.

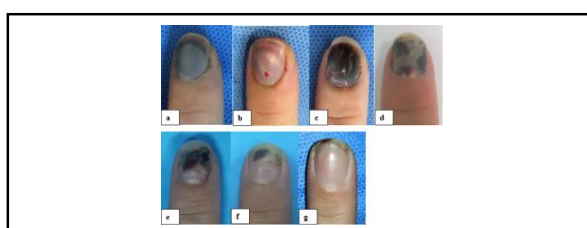


Figure 2: Pictures of nailbed repair, (a) before nailbed repair, (b) nail plate removed to reveal nailbed laceration, (c) post nailbed repair, (d) 2 weeks, (e) 1 month, (f) 3 months, (g) 18 weeks, and (h) 6 months post nailbed repair.



CONCLUSION:

Nail trephination is preferred over nailbed repair to treat subungual haematoma with intact nail plate and nail margin, which is simpler, less expensive, and less time-consuming procedure compared to nailbed repair technique, which can be done by medical personnel of all levels.

REFERENCES:

1. Seaberg DC, Angelos WJ, Paris PM (1991). Treatment of sub-ungueal hematoma with nail trephination: a prospective study. *Am J Emerg Med*, 9, 209–210.