

## Grade V Onychocryptosis: Surgical Treatment of an Exuberant Case

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Dear Editor,

Onychocryptosis is a frequently diagnosed nail condition [1] associated with pain and inflammation in nail folds. Numerous hypotheses about its pathogenesis have been put forward [2]. Several classifications exist for the severity of onychocryptosis, the most recent of which is proposed by Kline in 2008, which included risks of complication and treatment approaches [3]. Management of onychocryptosis is closely related to the severity of the condition: early stages may be treated with a conservative approach, whereas advanced stages may require surgical intervention. Nevertheless, no consensus exists on specific treatments for each stage [2].

We report the case of a previously healthy 25-year-old male patient with onychocryptosis in his left hallux for three years. He had undergone various treatments, but neither the pain nor the appearance of the lesion showed improvement. Dermatological examination revealed grade V onychocryptosis, according to Kline's classification, with severe hypertrophy and inflammatory reaction affecting all nail folds on and around the nail plate (FIG. 1). Radiographic evaluation ruled out bone deformities and osteomyelitis. Surgical intervention was the treatment of choice because of previous therapeutic failures.

Hypertrophic and inflamed tissues in lateral nail folds and in the distal nail fold were thoroughly excised. The dorsal portion of the proximal nail fold was preserved, while the hypertrophic and inflamed ventral portion was removed. The nail plate was preserved and its lateral portions were excised longitudinally. Subsequently, curettage and phenol cauterization of lateral matrix horns were performed. Finally, a continuous suture with absorbable thread was used around the periungual regions (FIG. 2).

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The patient underwent follow-up assessment by the surgical team, including photographic documentation, and had an uneventful recovery (FIG. 1).



**FIG. 1. (a) Preoperative assessment of 25-year-old male patient with severe onychocryptosis; (b) Grade V onychocryptosis in the immediate postoperative period; (c) Outcome at 14 postoperative days, showing a blood crust in the central area; (d) Outcome at 30 postoperative days with excellent healing and uniform nail plate growth, with a small amount of granulation tissue in the lateral folds; (e) Highly satisfactory outcome at 16 postoperative months.**



**FIG. 2. (a) Surgical management of grade V onychocryptosis, with excision of hypertrophic and inflamed tissues in the left lateral nail fold; (b) Excision of the ventral portion of the proximal nail fold and of the lateral nail folds; (c) Curettage of the lateral nail horns; (d) Phenol cauterization of the lateral nail horns; (e) The surgical procedure was concluded using continuous suture with absorbable thread around the periungual regions.**

Multiple surgical techniques are available for the treatment of onychocryptosis. Treatment decision is based on the stage of the condition, the specific type of onychocryptosis, and surgeon's expertise [4]. According to the Cochrane review of nine randomized controlled trials, phenol cauterization of the lateral matrix horns reduces the risk of recurrence, standing out as one of the few techniques supported by controlled studies [5]. Given the lack of consensus on the best treatment for each stage of onychocryptosis, management remains controversial. The present case illustrates the importance of combined surgical techniques for the management of severe onychocryptosis, for which conservative treatments have proven ineffective.

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