

ONYCHOCRYPTOSIS

Case-Based Diagnosis & Surgical Management: Role of the Podiatrist

Authors: Shahzad Ali, Jerusha Gill, Maham Nadeem, Nimra Edhi, Sunaina Javed

INTRODUCTION

Onychocryptosis, commonly known as an ingrown toenail, is frequently associated with improper nail trimming, tight footwear, and mechanical pressure.

- It most commonly affects the great toe and may progress to infection if untreated.
- Early management is essential to prevent complications and recurrence.

THE CASE



A 54-year-old male presented with pain, swelling, and redness on the lateral border of the right great toe for 10 days.

HISTORY

- Reported Pain & difficulty in walking.
- Wears tight-fitting shoes
- History of improper nail trimming
- No systemic illness such as diabetes
- Otherwise healthy.

CLINICAL EXAMINATION

- **Erythema** and **Edema**
- Presence of purulent discharge
- Nail plate penetrating surrounding soft tissue
- Tenderness on lateral nail fold



DIAGNOSIS: ONYCHOCRYPTOSIS
STAGE II (Infection Stage)

THE PODIATRIST'S ROLE



CLINICAL ASSESSMENT

- Detailed history & examination
- Identifying severity and risk factors
- Differential diagnosis
- Selection of appropriate treatment modality



PATIENT EDUCATION

- Explain condition & treatment options
- Nail care & footwear advice
- Set realistic expectations



CONSERVATIVE MANAGEMENT [BY EDUCATING PATIENT ON]

- Warm water soaks
- proper nail trimming guidance
- Topical care and dressing



SURGICAL MANAGEMENT

- Perform minor surgical procedures
- Partial or total nail evulsion
- Phenol matricectomy
- Aseptic technique & safety



POST OPERATIVE CARE

- Wound dressing & protection
- Pain management
- Follow ups to monitor healing and complications

PATHOPHYSIOLOGY:

Improper nail trimming leads to the formation of a nail spicule that penetrates the surrounding soft tissue, resulting in inflammation and possible secondary infection if untreated.

MANAGEMENT PLAN - CASE BASED

1. INITIAL MANAGEMENT [Conservative]

- Warm saline soaks
- topical and oral antibiotics
- Proper nail care Advice

2. RE-EVALUATION [After 5-Days]

- Persistent pain
- Ongoing discharge
- Patient prefers definitive treatment

3. DEFINITIVE TREATMENT [Surgical]

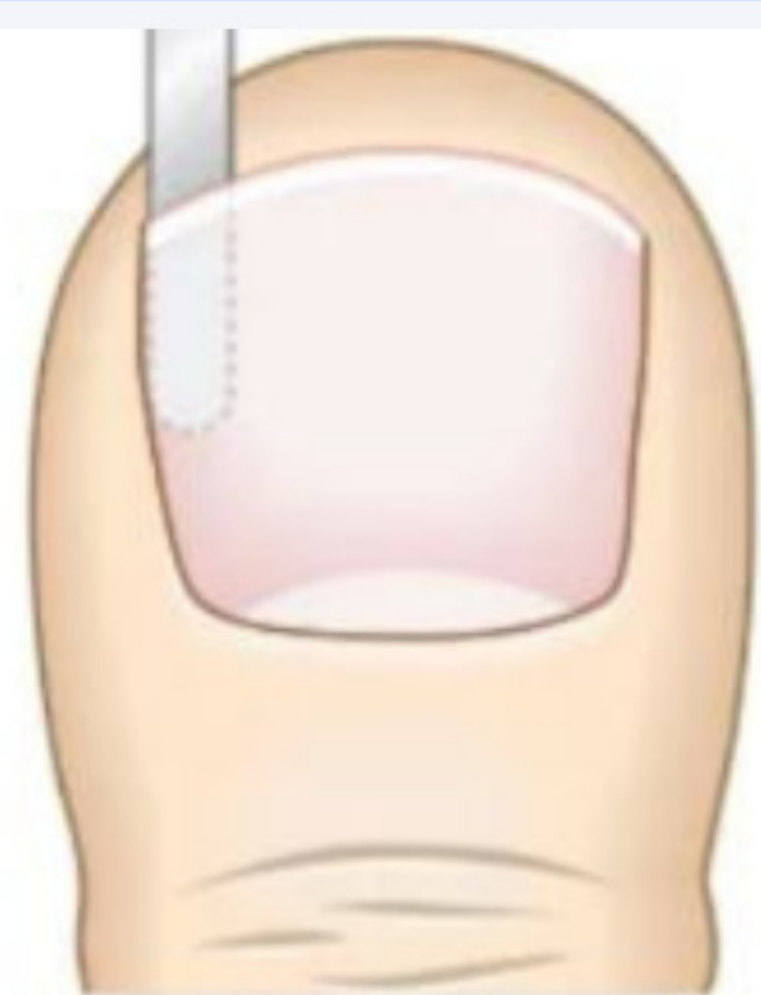
- Partial Nail Avulsion with Phenol matricectomy

4. POST-OPERATIVE CARE

- Dressing & protection
- Activity modification
- Review after 1 week

Procedure Performed:

Partial nail avulsion with phenol matricectomy was performed. The affected nail edge was removed, and phenol was applied to destroy the nail matrix, reducing the risk of recurrence.



The nail plate is separated from the nail bed



The nail plate is cut with scissors

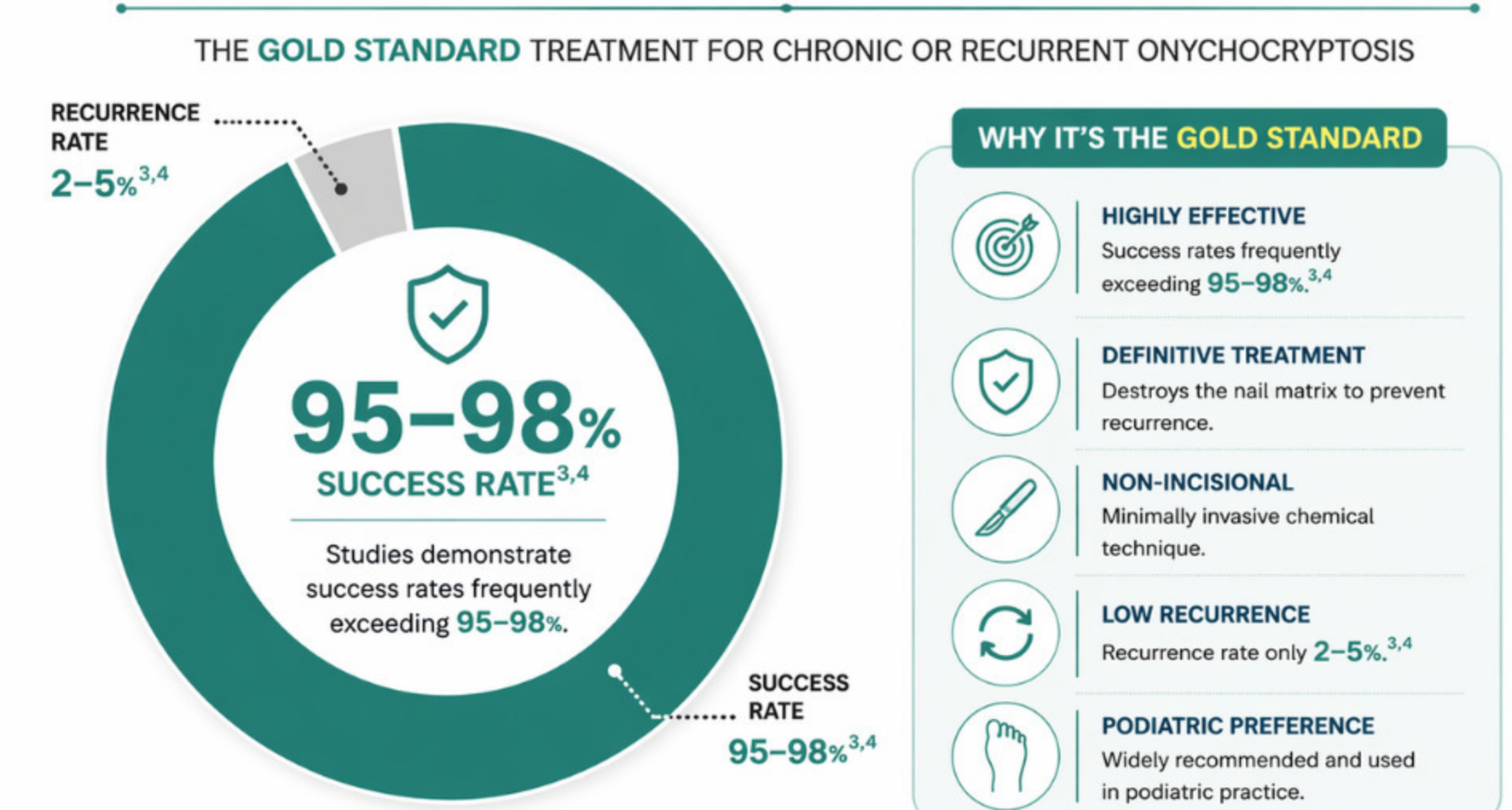


The section of nail causing the irritation is removed



Phenol (80%) is applied to kill the cells that grow the nail

PHENOL MATRICECTOMY (or PHENOLIZATION)



Phenol matricectomy (or phenolization) is widely recognized as one of the most effective, definitive treatments for chronic or recurrent onychocryptosis (ingrown toenails), with studies demonstrating success rates frequently exceeding 95-98%^{3,4}.

A GOLD STANDARD, NON-INCISIONAL SURGICAL OPTION

3. Siegle RJ. Surgical treatment of ingrown toenails. J Am Acad Dermatol. 1992;27(5):752-758.
4. Eekhof JAH, et al. Interventions for ingrowing toenails. Cochrane Database Syst Rev. 2012.

WHY THIS WORKS?

- Removing an offending nail spicule
- Destroy the matrix to prevent regrowth
- Low recurrence rate
- Outpatient procedure with quick recovery

OUTCOME AFTER THE SURGERY



CLINICAL PEARLS

- Always cut nail straight across.
- Early intervention prevents complication.
- Recurrent cases benefit matrix ablation.
- Patient education is key to prevention.



REFERENCES:

1. Heidelbaugh JJ. Management of ingrown toenails. Am Fam Physician. 2009;79(4):303-308¹
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4. Eekhof JAH, et al. Interventions for ingrowing toenails. Cochrane Database Syst Rev. 2012⁴