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**Title**

*The Vandenbos Procedure vs. Phenolization: A Pilot Randomized Trial*

**Priority 1 (Research Category)**

Sports medicine and orthopedics

**Presenters**

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**Abstract**

Introduction

There are many options for surgical management of ingrown toenails. Among the most widely practiced is lateral nail excision with phenolization. This procedure is typically well-tolerated, though phenol is not universally found in primary care practices, and phenolization may have a suboptimal cosmetic outcome as it does not spare the natural size and shape of the toenail. Nail edge excision (also known as the Vandenbos procedure) is a toenail-sparing procedure that focuses on removal of overgrown toe skin. To date, no prospective randomized studies exist comparing these two procedures.

Methods

Patients with moderate to severe ingrown toenails were randomized using concealed allocation to treatment with either the Vandenbos procedure or phenolization. The primary outcome was recurrence at one year.

Results

36 patients met inclusion criteria for the study. Of these, 13 patients agreed to enroll and were randomized to either the Vandenbos procedure or phenolization. Three patients disenrolled after randomization, and two patients were lost to follow-up. Of the eight remaining patients, four were treated with the Vandenbos procedure, and four were treated with phenolization. One patient who underwent the Vandenbos procedure reported recurrence, and two patients who underwent phenolization reported recurrence.

Discussion

The study was initially powered to show non-inferiority of the Vandebos procedure, though insufficient patients had been enrolled by the end of the study period. Prior studies have claimed no reported recurrence of the Vandebos procedure, though this trial showed recurrence of ingrown toenail in one in four of the randomized patients. More research should be performed comparing these two procedures.