



US005269290A

United States Patent [19]

[11] Patent Number: **5,269,290**

Barrett et al.

[45] Date of Patent: **Dec. 14, 1993**

[54] PLANTAR FASCIOTOMY SURGICAL PROCEDURE

[76] Inventors: **Stephen L. Barrett**, 30503 Glenboro, Spring, Tex. 77386; **Stephen V. Day**, 1207 Spring Crest, Seabrook, Tex. 77586

[21] Appl. No.: **870,354**

[22] Filed: **Apr. 17, 1992**

[51] Int. Cl.⁵ **A61B 1/00**

[52] U.S. Cl. **128/4; 128/898**

[58] Field of Search **128/4, 5, 6, 3, 20, 128/898; 606/170**

[56] References Cited

U.S. PATENT DOCUMENTS

4,461,281	7/1984	Carson .	
4,607,621	8/1986	Wheeler .	
4,815,464	3/1989	Sanders .	
4,819,620	4/1989	Okutsu	128/4
4,946,642	8/1990	Watanabe .	
4,962,770	10/1990	Agee et al.	128/898
5,029,573	7/1991	Chow	128/4

OTHER PUBLICATIONS

- Forman and Green, The Role of Intrinsic Musculature in the Formation of Inferior Calcaneal Exostoses, *Clinics in Podiatric Medicine and Surgery*, Apr., 1990.
- Turlik, Seronegative Arthritis as a Cause of Heel Pain, *Clinics in Podiatric Medicine and Surgery*, Apr., 1990.
- Baerg, Calcaneal Decompression for Heel Pain, *Clinics in Podiatric Medicine and Surgery*, Jan., 1991.
- Dailey, Differential Diagnosis and Treatment of Heel Pain, *Clinics in Podiatric Medicine and Surgery*, Jan., 1991.
- Jacoby and Wolfe, Surgical Management of Recalcitrant Heel Pain, *Clinics in Podiatric Medicine and Surgery*, Jan., 1991.
- Baxter and Thigpen, Heel Pain—Operative Results, *Foot & Ankle*, 1984.
- Lutter, Surgical Decisions in Athletes' Subcalcaneal Pain, *The American Journal of Sports Medicine*, 1986.
- O'Brien and Martin, A Retrospective Analysis of Heel Pain, *Journal of the American Podiatric Medical Association*, Aug., 1985.

Furey, Plantar Fasciitis, *The Journal of Bone and Joint Surgery*, Jul., 1975.

Hoffman and Thul, Fractures of the Calcaneus Secondary to Heel Spur Surgery, *Journal of the American Podiatric Medical Association*, May, 1985.

Shmokler, Bravo, Lynch and Newman, A New Use of Instrumentation in Fluoroscopy Controlled Heel Spur Surgery, *Journal of the American Podiatric Medical Association*, Apr., 1988.

Onuba and Ireland, Plantar Fasciitis, *Italian Journal of Orthopaedics and Traumatology*, Dec., 1986.

Kenzora, The Painful Heel Syndrome: All Entrapment Neuropathy, *Bulletin of the Hospital for Joint Diseases Orthopaedic Institute*, 1987.

LaMelle, Kisilewicz and Janis, Chronic Plantar Fascial Inflammation and Fibrosis, *Clinics in Podiatric Medicine and Surgery*, Apr., 1990.

(List continued on next page.)

Primary Examiner—Richard J. Apley

Assistant Examiner—Karen A. Jalbert

Attorney, Agent, or Firm—Barnes & Thornburg

[57] ABSTRACT

A new surgical technique, the Barrett-Day endoscopic plantar fasciotomy procedure, is used to relieve the symptoms of heel spur syndrome. The positioning of the plantar fascia ligament is determined, and the patient is prepared for surgery. A small, vertical incision is made in the medial side of the foot, and the adipose tissue is spread. A fascial elevator is inserted into the first incision to separate the plantar fascia from the surrounding tissue, creating a channel. A slotted canula and trocar is inserted into the channel, and a second incision is made on the lateral side of the foot, allowing the canula and trocar to substantially pierce the foot. The trocar is removed, and an endoscope is inserted into the canula through the medial portal. A cutting instrument is inserted into the lateral portal of the canula, and is used to release the plantar fascia from the heel bone. Once the plantar fascia has been released from the heel bone, the instruments are removed, and a bandage is placed around heel. The procedure allows the patient to immediately bear weight on the heel after the operation is complete.

34 Claims, 7 Drawing Sheets

