even careful use of this "benign" device can result in soft-tissue injuries.

DOI: 10.1097/PRS.0b013e31817d6514

Pirko Maguiña, M.D. Fritz Jean-Pierre, M.D.

Mark A. Grevious, M.D.

Allan S. Malk, M.D. Division of Plastic, Reconstructive and Cosmetic Surgery University of Illinois at Chicago Chicago, Ill.

Correspondence to Dr. Maguina Division of Plastic Surgery University of Illinois at Chicago 820 South Wood Street (M/C 958), CSN Suite 515 Chicago, Ill. 60612 pmaguina@uic.edu

REFERENCES

- Aho, K., Sainio, K., Kianta, M., and Varpanen, E. Pneumatic tourniquet paralysis: Case report. J. Bone Joint Snrg. (Br.) 65: 441, 1983.
- Yates, S. K., Hurst, L. N., and Brown, W. F. The pathogenesis of pneumatic tourniquet paralysis in man. *J. Neurol. Neurosurg. Psychiatry* 44: 759, 1981.
- Lowe, J. B., III, Sen, S. K., and Mackinnon, S. E. Current approach to radial nerve paralysis. *Plast. Reconstr. Surg.* 110: 1099, 2002.
- Ozturk, A., Kuthi, G., Taskara, N., Kale, A. C., Bayraktar, B., and Cecen, A. Anatomic and morphometric study of the arcade of Frohse in cadavers. *Surg. Radiol. Anat.* 27: 171, 2005.
- Arle, J. E., and Zager, E. L. Surgical treatment of common entrapment neuropathies in the upper limbs. *Muscle Nerve* 23: 1160, 2000.

Skeletal Traction Treatment of Severe Finger Contracture: A New Innovative Skeletal Distraction Device

Sir:

This report introduces a novel skeletal distraction device for the treatment of severe finger contractures. Severe finger contractures (e.g., in advanced stages of Dupuytren's disease) are a great challenge for surgeons. The main problems are the shortened ligaments of the involved joints and the shortened vessels, nerves, and tendons. Correcting severe finger contractures in one step carries a high risk of finger necrosis and unsatisfying functional results.

Since the invention of the continuous traction method for the treatment of severe finger contractures in Dupuytren's disease,² the rate of finger amputations and complications in this special entity has decreased. Several nonskeletal fixed and skeletal fixed distraction devices have been invented for this type of distraction treatment.^{3–5} However, systems available at present do not consider all aspects and problems associated with continuous traction treatment of severe finger contractures.

We present an innovative external skeletal fixed distraction device for the treatment of severe finger joint contractures (e.g., in advanced stages of Dupuytren's disease). The newly developed skeletal fixed distraction device acts as an angular distractor that allows additional longitudinal distraction of the treated joints at the same time. The longitudinal distraction during the angular correction is important to prevent cartilage damage and to stretch the ligaments of the treated joints. In addition, this device allows the independent treatment of two joints in one finger independently.

We treated five patients with severe joint contractures of the proximal interphalangeal joint and the metacarpophalangeal joint of the fifth finger because of Dupuytren's disease. All patients were able to perform the distraction themselves after a short introduction in the use of the distraction device. The mean distraction period was 22 days. All treated joints were distracted until full extension was achieved. In all patients, a limited fasciectomy was performed 3 days after extension of all joints was completed. Neither a pintrack infection nor algodystrophy was observed in our patients. The mean follow-up period was 8.6 months. The results after the follow-up period were slightly bet-

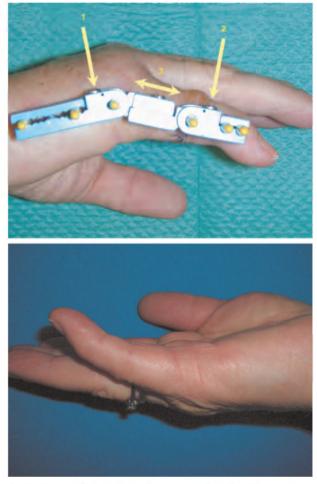


Fig. 1. Result of a 62-year-old woman before the start of distraction and during the distraction period, 12 months after the limited fasciectomy.

ter than those reported for other devices in the literature.

Exemplarily, we demonstrate one case of a 62-yearold woman with an advanced stage of Dupuytren's disease (Fig. 1). The device was applied under an ulnar nerve block anesthesia by the operator. Within the distraction period, we obtained a radiographic control to discover osteolysis or a possible fracture. After a distraction period of 19 days and 2 additional days for tissue recovery, we performed limited fasciotomy. After 1 week of resting time, we started physiotherapy. As can be seen in Figure 1, nearly full flexion and extension was reached in all joints of the involved finger.

In the literature, one nonskeletal fixed distraction device, one frame device, and five fixateur devices that were used to correct finger contraction before fasciectomy or scar excision have been found. The results were variable. Because recurrence of joint contracture is common, our promising preliminary results need to be followed up over an extended period of time. DOI: 10.1097/PRS.0b013e31817d653b

Bernd Loos, M.D.

Raymund E. Horch, M.D.

Department of Plastic and Hand Surgery University Hospital Friedrich-Alexander-Universität Erlangen/Nürnberg Erlangen, Germany

Correspondence to Dr. Loos Department of Plastic and Hand Surgery University Hospital Friedrich-Alexander-Universität Erlangen/Nürnberg Krankenhausstraβe 12 91054 Erlangen, Germany bernd.loos@chir.imed.uni-erlangen.de

Initial results of the patients reported in this article have been presented, in part, at the Annual Meeting of the German Association of Plastic Surgeons, in October 2005.

DISCLOSURES

Both authors have applied for a patent for the introduced distraction device. It is registered at the European Patentamt in Munich No. DE 102004014075.8. The work was not supported by any funds.

REFERENCES

- 1. Loos, B., and Horch, R. The "Erlanger" finger distraction device for severe finger contractures: First promising results. In *Proceedings of the Annual Meeting of the Societies of the German and Austrian Plastic Surgeons*. Munich: Kaden Verlag, 2005.
- Messina, A., and Messina, J. The TEC treatment (continuous extension technique) for severe Dupuytren's contracture of the fingers. Ann. Chir. Main Memb. Super. 10: 247, 1991.
- 3. Beard, A. J., and Trail, I. A. The "S" Quattro in severe Dupuytren's contracture. J. Hand Surg. (Br.) 21: 795, 1996.
- 4. Hodgkinson, P. D. The use of skeletal traction to correct the flexed PIP joint in Dupuytren's disease: A pilot study to assess the use of the Pipster. *J. Hand Surg. (Br.)* 19: 534, 1994.

5. Piza-Katzer, H., Herczeg, E., and Aspek, R. Preoperative intermittent pneumatic extension treatment stage III and IV Dupuytren contracture. *Handchir. Mikrochir. Plast. Chir.* 32: 33, 2000.

The M-Shaped Thigh Lift

Sir:

The authors propose a new approach to the old aesthetic problem of skin and fat laxity in the hipbuttock-thigh region caused by lipodystrophy (the saddlebag deformity). The ample excision is performed through an M-shaped skin incision. The traditional supragluteal circular incision is complemented by bilateral downward extensions in the lateral thighs. The adequacy of the resection, leading to superior aesthetic results, seems to compensate for the resultant long and visible thigh scar and should be considered in selected patients.

Living for the rest of their lives with extensive scars is a condition with which massive weight loss patients will have to deal to obtain adequate body contour. This is not an apology for unnecessary surgical scars, but excessively economical skin and fat resections frequently lead to insufficient aesthetic results.

Two different techniques to remove more skin and fat laxity in the severe saddlebag deformity were described recently.^{1,2} The first one proposed a change in the patient's position on the operating table, with full abduction of each operated thigh before closure in the prone position, and reported "significantly lower deformity severity scores."1 Some excess circumferential skin laxity extends beyond this technique's resection limits. The second technique included suction lipectomy and direct excision of skin and fat, with the circular defects being closed with purse-string sutures, with "greatly improved contour and minimal deformity or scarring."2 Results may change because superficial purse-string sutures require skin wrinkling and depend on the strength of one main suture.

In agreement, this viewpoint article advocates more skin and fat laxity removal in the severe saddlebag deformity. An M-shaped incision was planned. The central part of this incision is similar to previously described techniques, but the focus is in the lateral thigh, where this deformity is more evident. The lateral vertical portion of this incision allows easy and adequate skin and fat removal. The final skin tension in the lateral thigh resembles that of a routine suction lipectomy, and the body contour obtained is fully adequate (Fig. 1).

Conventional hip-buttocks-thigh lift procedures rely on the excision of skin and fat from the transition to the dorsum area and from the inner thigh and central buttocks creases.³⁻⁵ A vertical inner thigh extension is frequently used, and the resultant long scar is considered aesthetically suitable. Unfortunately, in the saddlebag deformity, the main component of skin and fat laxity resides in the lateral thigh, pro-