New Technique in Treatment of Midportion Achilles Tendinopathy

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Introduction
Although results of open surgical treatment of Achilles tendon pathologies have been reported to be satisfactory, postoperative complication rates remain high and varying from 4.7% to 11.6%. Open surgical treatment is also associated with a relatively long postoperative rehabilitation period and a delayed patient recovery in terms of full tendon loading activity. A less invasive endoscopic surgical procedure would be a useful alternative to open surgery, in order to minimize the rate of the postoperative complications and enhance postoperative patient recovery. In this prospective study we present the short-term clinical results of a new endoscopic surgical technique for treating chronic painful midportion Achilles tendinopathy.

Methods
33 consecutive patients (25 men and 8 woman, mean age 50.7 years) suffering from chronic painful Achilles tendinopathy were included in this study and were treated with endoscopic debridement of the ventral neovascularized area, the peritendineum and the Achilles tendon. For evaluation, the patients recorded the VISA-A questionnaire, the function of the Achilles tendon and the severity of Achilles tendon pain during tendon loading activity pre and postoperatively in a visual analogue scale (VAS). Patient global satisfaction with the results of the operation was also assessed in a similar manner. Patients were followed-up (FU) direct postoperatively, at 6 weeks, 3 months, 6 months and 1 year, when the last follow-up examination took place.

Results
All patients experienced immediate postoperative pain relief. In terms of Achilles tendon pain, the mean score on the VAS decreased significantly (p<0.05) from 60.0 ± 24.4 preoperatively, to 8.6 ± 12.7 at 1 year. The sole interval without a significantly decrease was between the pre- and direct postoperatively FU (45.6 ± 36.0). In terms of Achilles tendon function, the mean score on the VAS increased significantly (p<0.01) from 35.8 ± 23.1 at the preoperative examination to 89.9 ± 14.8 at 1 year, but did as well not increase significantly to direct postoperatively (26.4 ± 25.1). In case of global satisfaction, data shows a significant increase among all FU-intervals. Altogether from 26.5 ± 29.9 preoperatively to 85.9 ± 21.5 at 1 year. The VISA-A score was significantly better (p<0.003) at 1 year FU (86.2 ± 13.4) compared to preoperatively (41.8 ± 21.7). Up to now, no postoperative complications were recorded.

Conclusion
The short-term clinical results on patients with chronic painful midportion Achilles tendinopathy, treated with endoscopic debridement of the area of neovascularization outside the ventral part of the Achilles tendon, were completely satisfactory in regard to the recovery of functional aspects.