

Efficacy and Safety of Penile Girth Enhancement by

Two-stage Autologous Fat Injection (TAFI) operation

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Introduction and Objective: To investigate the efficacy and safety of penile girth enhancement (PGE) by two-stage autologous fat injection (TAFI) operation in male patients with thin penises.

Methods: This study was conducted on 46 patients with small penile circumference who underwent TAFI operation from April 2009 to September 2010 and were followed up for more than 12 months. Patients in whom the mean thickness of the proximal 1/3 of the penis and of the distal 1/3 of the penis ($G1 \leq 7.4\text{cm}$) were selected as subjects. TAFI operation consists of 2-stages. After thigh and/or abdominal fat suction, fat was evenly injected into the Colles' fascia (first stage). 3 months later, we thawed out the remnant frozen fat and reinjected into the Colles' fascia (second stage). The patients' ages and operation times were analyzed. The $G1$, stretched ($L1$), and flaccid length ($L2$) were compared between before the surgery and 3, 6 and 12 months after the first stage surgery. 5-item version of the International Index of Erectile Function (IIEF-5) were compared between before the surgery and 3 and 12 months after the surgery. Postoperative complications were surveyed.

Results: The mean patients' age was 39.4 (range, 22-55) years, and the mean operative time was 41.7 (31-49) minutes at first and 17.5 (15-20) minutes at second stage. The mean injected fat volume was 39.4 (22-50) cc at first stage, 32.1 (20-42) cc at second stage. The preoperative, postoperative 3, 6 and 12 months $G1$ were 7.02 ± 0.39 , 9.26 ± 0.82 , 10.71 ± 0.87 and $10.68 \pm 0.85\text{cm}$, respectively (Figure 1). The $L1$ and $L2$ were not

significantly different between before the surgery and 3 and 12 months after the surgery. The IIEF-5 was 19.59 ± 3.61 before the surgery, 20.30 ± 3.32 and 20.87 ± 3.53 at 3 and 12 months after the surgery ($P = 0.040$, 3 months; $P = 0.003$, 12 months; $P = 0.014$, 3 months vs 12 months). In terms of postoperative complications, only nodular fat was observed in two cases (4.3%) at 12 months after surgery.

Conclusions: TAFI operation for PGE in male patients with thin penises were effective and safe without postoperative major complications.

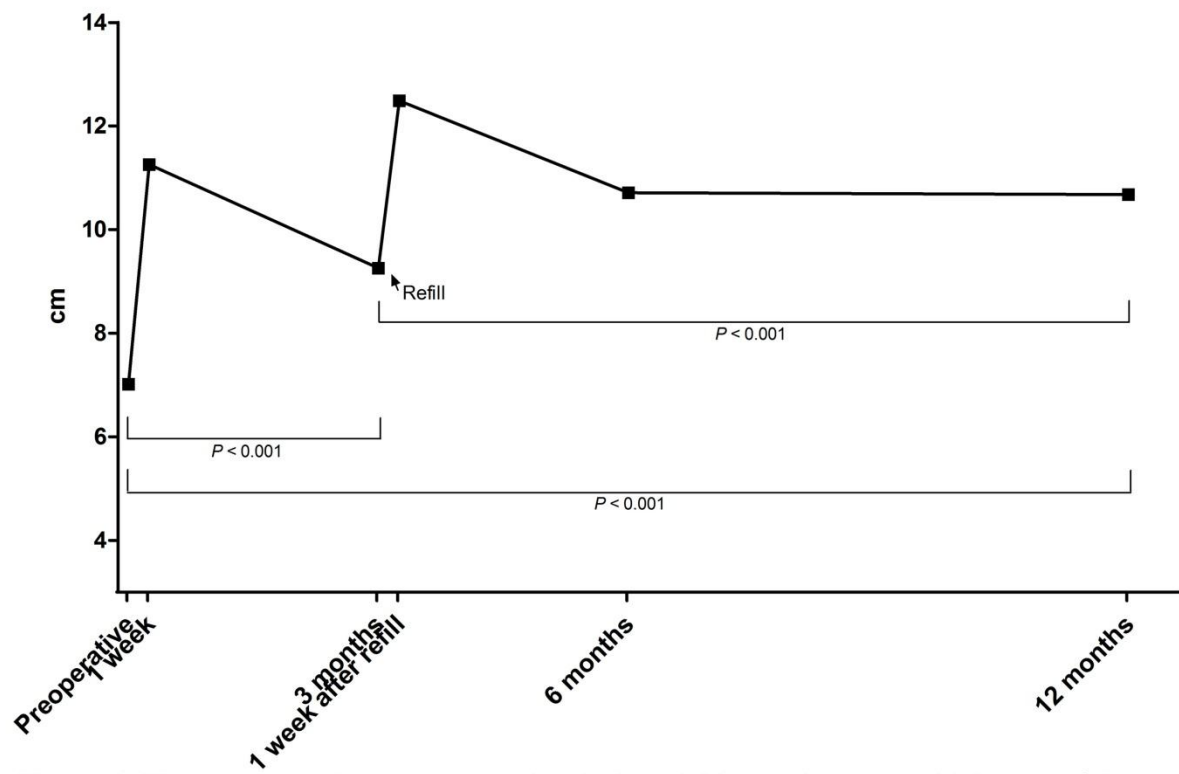


Figure 1. The preoperative, postoperative 3, 6 and 12 months mean thickness of the proximal 1/3 of the penis and of the distal 1/3 of the penis were 7.02 ± 0.39 , 9.26 ± 0.82 , 10.71 ± 0.87 and 10.68 ± 0.85 cm, respectively.