

Penile Dermal Flap in Patients With Peyronie's Disease: Long-Term Results

Alchiede Simonato,* Andrea Gregori, Virginia Varca, Fabio Venzano, Aldo Franco De Rose, Carlo Ambruosi, Marco Esposito and Giorgio Carmignani

From the "Luciano Giuliani" Department of Urology, University of Genova, Genova and Department of Urologic Surgery, "Luigi Sacco" University Medical Center (AG), Milan, Italy

Purpose: In 1995 a penile dermal flap was described as an ideal operation for penile curvature due to Peyronie's disease. We report our experience with penile dermal flaps in patients with penile curvature due to Peyronie's disease.

Materials and Methods: Between January 2001 and May 2004, 26 potent white men with Peyronie's disease underwent corporoplasty with a penile dermal flap. They were evaluated at 3, 6 and 12 months, and yearly thereafter by determination of penile length changes and residual curvature, and the International Index of Erectile Function-5.

Results: At the maximum followup (mean 95 months, range 81 to 108) 22 of 26 patients (85%) were available for examination, of whom 14 (63.6%) had no residual curvature, and 2 (9.1%) and 7 (31.8%) had improved and worse erectile function, respectively. Nine patients (40.9%) had inclusion cysts at the surgical site, including 5 who underwent surgical cyst removal with no cyst recurrence. Only 9 of 22 patients (40.9%) were satisfied with the cosmetic and functional outcome.

Conclusions: Despite the attractiveness of the operation to our knowledge no other experience with this technique has been reported. Our results differ from those reported, although we tried to exactly follow the original technique of dermabrading the flap with sandpaper. Based on these results we abandoned the penile dermal flap in patients with Peyronie's disease.

Key Words: penis, penile induration, complications, skin transplantation, reconstructive surgical procedures

PATIENTS with penile curvature due to PD may experience difficult sexual intercourse.¹ When the disease is stable and conservative measures fail, penile curvature is correctable by several surgical approaches, including tunica albuginea plication techniques, plaque incision or partial excision with grafting and penile prosthesis placement with manual modeling. The choice of surgical approach depends on several factors, including penile curvature degree, penile shortening se-

verity, penile narrowing and/or a hinge effect, and whether erectile dysfunction is present.²

Modern graft materials described in human surgical series include allografts such as temporalis fascia, dermis, a preputial patch, tunica vaginalis and vein grafts, xenografts such as porcine small intestine submucosa, human cadaveric grafts such as pericardium and dura mater, and synthetic grafts such as polytetrafluoroethylene and polyethylene terephthalate.³ In 1996

Abbreviations and Acronyms

IIEF = International Index of Erectile Function

PD = Peyronie's disease

Submitted for publication June 15, 2009.

*Correspondence: Ospedale San Martino, Clinica Urologica "L. Giuliani", pad. 12, Università degli Studi di Genova, Lgo Rosanna Benzi, 12, 16132 Genova, Italy (telephone: +393356444088; FAX: +39010354004; e-mail: alchiede.simonato@unige.it).