

Multicenter prospective study of patients with Peyronie's disease who underwent incision or partial-plaque excision with collagen-fibrinogen-thrombin fleece grafting

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INTRODUCTION

Surgical treatment represents the gold standard for patients with clinically significant PD. Multiple surgical techniques depending on the complexity of the deformity, baseline erectile function and patient's expectations has been proposed.

In 2011, the technique of grafting with hemostatic self-adhesive fleece of equine collagen was described (single surgeon, single institution), and afterward its use has been popularized in Europe with potential advantages as less surgical time, less technically demanding procedure and relatively cheaper than others grafts materials previously described. However, there is no prospective and multicenter evidence to evaluate the outcomes of this technique.

OBJETIVES

To evaluate the preliminary outcomes after 16 months of recruiting patients who underwent this surgical technique in 11 Spanish centers.

MATERIAL AND METHODS

Between July 2016 and October 2017, 43 patients underwent surgery in 11 Spanish centers using the previously described technique. Preoperative, intraoperative and post-surgical data were collected prospectively and follow up at 3 and 6 months with questionnaires (PDQ, EHS, IIEF-5 and satisfaction) was performed. All patients received informed consent and the protocol was approved by Institution Review Board (IRB).

RESULTS

Mean age was 53.8 years (SD 5.9). Most patients had a single plaque with an average size of 17.1 mm, 81.4% dorsal and an average curvature of 71.8 ° (SD 16.88). All patients underwent surgery with at least 3 months of stable phase disease, and 65.1% of them had tried other previous treatments (IPDE5, vitamin E, pentoxifylline and traction therapy, etc). Mean surgical time was 91.3 min, with a complete intraoperative resolution of the curvature (<5 °) in 93% of cases, and only one patient requiring a small plication. Seven (16.3%) of the patients presented postoperative hematoma, which was always resolved with conservative management. No vascular complications were observed.

Mean follow-up time was 9.4 months (SD 4.6), mean preoperative IIEF-5 and EHS at 6 months remained stable (20.7 VS 19.5 and 3.5 VS 3.2, respectively), while a statistically significant improvement was observed in PDQ scale and pre-surgical PDQ-bother scores and at 6 months (31.1 VS 10.8, $p < 0.001$ and 10.5 VS 3.9, $p < 0.001$, respectively). Thirty-six (83.7%) of the patients considered that their penis at 6 months was totally or practically straight, 65.1% had a shortening of between 1-3 cm after the intervention and 55% of the patients had some glans hypo sensibility at 6 months of the intervention. Fifty percent of patients required PDEI at 6 months to achieve full erections. 95.3% of the patients reported a clear improvement after the intervention, 76.7% of them were satisfied, and 79% would again choose the same intervention. Only three patients had to be re-operated (IPP, Re-do incision + graft and plication).

CONCLUSION

The technique of incision / excision of plaque plus collagen-fibrinogen-thrombin fleece graft seems to be safe and effective with good aesthetic and functional results and should be considered as an option in the therapeutic arsenal of the management of Peyronie's disease. To extend this initial experience, the study will continue to collect data from more patients.