

# **Bilateral sacrospinous fixation after second recurrence of vaginal vault prolapse: efficacy and impact on quality of life and sexuality.**

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## **ABSTRACT**

*Purpose.* We aimed to study the efficacy of transvaginal bilateral sacrospinous fixation (TBSF) and its impact on quality of life (QoL) and sexual functions in women affected by second recurrences of vaginal vault prolapse (VVP).

*Materials and methods.* We performed a prospective observational study on 20 sexually active patients affected by second recurrence of VVP, previously treated with monolateral sacrospinous fixation. TBSF was performed in all the patients. They were evaluated before the surgery and at 12 months follow-up through pelvic organs prolapse quantification (POP-Q) system, Short Form-36 (SF-36) and Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire (PISQ-12).

*Results.* At 12 months follow-up, 18 of 20 (90%) patients had been cured of their recurrent VVP. No major intra- and post-operative complications occurred. We found a significant

improvement in 4/5 POP-Q landmarks (excluding total vaginal length), SF-36 and PISQ-12 scores.

*Conclusion.* According to our data analysis, TBSF appears to be safe, effective and able to improve both QoL and sexual functions in patients affected by second recurrence of VVP after previous unilateral sacrospinous fixation.

## **BIBLIOGRAFIA**

1. Abrams P, Cardozo L, Fall M, Griffiths D, Rosier P, Ulmsten U, van Kerrebroeck P, Victor A, Wein A; Standardisation Sub-committee of the International Continence Society (2002) The standardisation of terminology of lower urinary tract function: report from the Standardisation Sub-committee of the International Continence Society. *Neurourol Urodyn* 21:167–178. doi: 10.1002/nau.10052
2. Cruishank SH (1991) Sacrospinous fixation - should this be performed at the time of vaginal hysterectomy? *Am J Obstet Gynecol* 164:1072–1076. doi: 10.1016/0002-9378(91)90588-I
3. Bump RC, Mattiasson A, Bø K, Brubaker LP, DeLancey JO, Klarskov P, Shull BL, Smith AR (1996) The standardization of terminology of female pelvic organ prolapse and pelvic floor dysfunction. *Am J Obstet Gynecol* 175:10–17. doi: 10.1016/S0002-9378(96)70243-0
4. Laganà AS, Sapia F, Buttice S, Valenti G, Vitale SG (2016) Comment on "efficacy and safety of skeletonized mesh implants for advanced pelvic organ prolapse: 12 month follow up". *World J Urol* 34:1499-1500. doi:10.1007/s00345-016-1858-7

5. Laganà AS, LA Rosa VL, Rapisarda AM, Vitale SG (2017) Comment on: "Effect on Sexual Function of Patients and Patients' Spouses After Midurethral Sling Procedure for Stress Urinary Incontinence: A Prospective Single Center Study". *Low Urin Tract Symptoms* 9:62. doi: 10.1111/luts.12164.
6. Laganà AS, La Rosa VL, Rapisarda AM, Vitale SG (2017) Pelvic organ prolapse: the impact on quality of life and psychological well-being. *J Psychosom Obstet Gynaecol*. doi: 10.1080/0167482X.2017.1294155
7. Vitale SG, La Rosa VL, Rapisarda AM, Laganà AS (2017) Sexual Life in Women with Stress Urinary Incontinence. *Oman Med J* 32:174-175. doi: 10.5001/omj.2017.33
8. Vitale SG, Caruso S, Rapisarda AM, Valenti G, Rossetti D, Cianci S, Cianci A (2016) Biocompatible porcine dermis graft to treat severe cystocele: impact on quality of life and sexuality. *Arch Gynecol Obstet* 293:125-131. doi: 10.1007/s00404-015-3820-0
9. Farthmann J, Watermann D, Erbes T, Roth K, Nanovska P, Gitsch G, Gabriel B (2015) Functional outcome after pelvic floor reconstructive surgery with or without concomitant hysterectomy. *Arch Gynecol Obstet* 291:573–577. doi: 10.1007/s00404-014-3435-x
10. Pauls RN, Silva WA, Rooney CM, Siddighi S, Kleeman SD, Dryfhout V, Karram MM (2007) Sexual function after vaginal surgery for pelvic organ prolapse and urinary incontinence. *Am J Obstet Gynecol* 197:622.e1–622.e7. doi: 10.1016/j.ajog.2007.08.014
11. Vitale SG, Laganà AS, Rapisarda AM (2016) Letter to the editor: Comment on "Simultaneous treatment of anterior vaginal wall prolapse and stress urinary incontinence by using transobturator four arms polypropylene mesh". *Investig Clin Urol* 57:150-151. doi: 10.4111/icu.2016.57.2.150

12. Sze EH, Karram MM (1997) Transvaginal repair of vault prolapse: a review. *Obstet Gynecol* 89:466–475. doi: 10.1016/S0029-7844(96)00337-7
13. Benson JT, Lucente V, McClellan E (1996) Vaginal versus abdominal reconstructive surgery for the treatment of pelvic support defects: a prospective randomized study with long-term outcome evaluation. *Am J Obstet Gynecol* 175:1418-1421. doi: 10.1016/S0002-9378(96)70084-4
14. Lovatsis D, Drutz HP (2002) Safety and efficacy of sacrospinous vault suspension. *Int Urogynecol J* 13:308-313. doi: 10.1007/s001920200067
15. Caruso S, Bandiera S, Cavallaro A, Cianci S, Vitale SG, Rugolo S (2010) Quality of life and sexual changes after double transobturator tension-free approach to treat severe cystocele. *Eur J Obstet Gynecol Reprod Biol* 151:106–109. doi: 10.1016/j.ejogrb.2010.03.016
16. Vitale SG, Laganà AS, Gulino FA, Tropea A, Tarda S (2016) Prosthetic surgery versus native tissue repair of cystocele: literature review. *Updates Surg* 68:325-329. doi: 10.1007/s13304-015-0343-y
17. Matthews CA (2016) Minimally Invasive Sacrocolpopexy: How to Avoid Short- and Long-Term Complications. *Curr Urol Rep* 17:81. doi: 10.1007/s11934-016-0638-7
18. Febraro W, Beucher G, Von Theobald P, Hamel P, Barjot P, Heisert M, Levy G (1997) Feasibility of bilateral sacrospinous ligament vaginal suspension with a stapler. Prospective studies with the 34 first cases. *J Gynecol Obstet Biol Reprod (Paris)* 26:815-821. doi: JG-12-1997-26-8-0368-2315-101019-ART74
19. Pohl JF, Frattarelli JL (1997) Bilateral transvaginal sacrospinous colpopexy: preliminary

- experience. *Am J Obstet Gynecol* 177:1356–1362. doi: 10.1016/S0002-9378(97)70075-9
20. Qatawneh A, Thekrallah F, Bata M, Al-Kazaleh F, Almustafa M, Abu-Kader I (2013) Risk factors of surgical failure following sacrospinous colpopexy for the treatment of uterovaginal prolapse. *Arch Gynecol Obstet* 287:1159-1165. doi: 10.1007/s00404-012-2685-8
21. Chen L, Ashton-Miller JA, Hsu Y, DeLancey JO (2006) Interaction among apical support, levator ani impairment, and anterior vaginal wall prolapse. *Obstet Gynecol* 108:324–332. doi: 10.1097/01.AOG.0000227786.69257.a8
22. Beer M, Kuhn A (2005) Surgical techniques for vault prolapse: a review of the literature. *Eur J Obstet Gynecol Reprod Biol* 119:144–155. doi: 10.1016/j.ejogrb.2004.06.042