

PELVIC PAIN IS ASSOCIATED WITH APICAL VAGINAL PROLAPSE AND CAN BE CURED BY ELEVATE ANTERIOR AND POSTERIOR

Hypothesis / aims of study

Controversy exist if vaginal prolapse is associated with pelvic pain. Petros (2) hypothesised that apical prolapse (posterior fornix) in particular may cause deep sacral pain, low abdominal pain (often unilateral), dyspareunia and postcoital ache worsening during the day and relieved by lying down, or by inserting a ring pessary. Lax uterosacral ligaments should be responsible for hypermobility of the apex and stretching of visceral fibres (plexus pelvici), which stimulate the nerve endings and cause pain. Heit et al. (1) did not find an association between pelvic organ prolapse and pelvic or low back pain. In the Propel-studies the effectiveness of Elevate anterior and Elevate posterior in the reconstruction of anterior/apical or posterior/apical prolapse, respectively, has been examined in follow-up studies from which we are able to analyze the association between apical prolapse and pelvic pain in the follow-up after pelvic floor reconstruction.

Study design, materials and methods

Pelvic pain was estimated using the Wong-Baker Face Pain Scale (WBFPS), a visual analogue scale between 0 (no pain) and 10 (severe pain) at baseline and 3 months after surgery. POP-Q measurements preoperatively enabled the classification of the patients according apical stage 0 -4, anterior stage 2-4 and posterior stage 2-4 (inclusion criteria). In 121 patients Elevate posterior and in 131 patients Elevate anterior had been implanted. All patients had pain measurements before surgery (baseline) and at 3 months after surgery.

Results

Patients with cystoceles or rectoceles with anterior or posterior stages 2-4 and apical stage 0 (N = 24) only in 29 % had pelvic pain, those with apical stage 1 (N = 104) in 48 % and those with apical stage 2-4 (N = 124) in 56 % had pelvic pain (table 1). The difference between WBFPS Scores in apical stage 0 and stage 2-4 is highly significant ($p < 0,01$).

3 months after pelvic floor reconstruction with Elevate posterior or anterior pelvic pain significantly ($p < 0,01$) was reduced in those patients with apical stage 1 (N = 104) and apical stage 2-4 (N = 124). Those patients with apical stage 1 in only 14 % and those with apical stage 2-4 in only 16 % had pelvic pain at 3 months after surgery (table 1).

Interpretation of results

These data give strong evidence that apical prolapse can be associated with pelvic pain in about 50 % of patients. The pain can be even severe in about 10 % of all patients. Furthermore it could be shown that pelvic floor reconstruction with Elevate anterior and posterior can cure pelvic pain in 70 % (35/50) of patients with apical stage 1 and in 71 % (50/70) of patients with apical stage 2-4. Even severe pain can be cured/improved in 92 % (23/25) of patients with apical stages 1-4.

<u>Apical stage baseline</u>	<u>WBFPS-Score baseline</u>		
	0	1-4	5-10
0 (N = 24)	17	6	1
1 (N = 104)	54	38	12
2-4 (N = 124)	54	57	13
	<u>WBFPS-Score at 3 months</u>		
	0	1-4	5-10
0 (N = 24)	18	5	1
1 (N = 104)	89	15	0
2-4 (N = 124)	104	18	2

Table 1: WBFPS-Scores at baseline and at 3 months in different apical stages.

Concluding message

Pelvic pain can be caused by apical prolapse and in those patients pelvic pain often can be cured by pelvic floor reconstruction with Elevate anterior and posterior.

References

1. Heit M, Culligan P, Rosenquist C, Shott S (2002) Is Pelvic Organ Prolapse a Cause of Pelvic or Low Back Pain? *Obstet Gynecol* 99:23-28
2. Petros P (1996) Severe Chronic Pelvic Pain in Women May Be Causative By Ligamentous Laxity in the Posterior Fornix of the Vagina. *Aust NZ J Obstet Gynecol* 36:351-354

Disclosures

Funding: All 3 authors are consultants of American Medical Systems **Clinical Trial:** Yes **Registration Number:** Propel Trial #1004 **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Ethik Kommission der Bayerischen Landesärztekammer, München, Germany EC of the University of Tennessee Graduate School of Medicine, Knoxville, TN 37920, USA EC of the Eastern Virginia Medical School, Norfolk, USA **Helsinki:** Yes **Informed Consent:** Yes