

PELVIC FLOOR-LIFTING: REPORT ON TWENTY OPERATIONS FOR SEVERE PELVIC FLOOR DESCENT AND PELVIC ORGAN PROLAPSE IN FEMALE PATIENTS

Hypothesis / aims of study

The female pelvic floor is not split up into a posterior "colorectal portion" and an anterior "urogynaecological portion" by nature but by the respective medical disciplines. This turns out to be of disadvantage in severe cases of pelvic floor descent and pelvic organ prolapse, including prolapse of the rectum (procidentia), which require an interdisciplinary management.

In most cases of severe posterior pelvic floor descent with rectal incontinence urogynaecological examination and MRI defecography will reveal concomitant anatomical defects in the anterior portion and also urogynaecological dysfunctions. It is, therefore, an incomplete operation when only the descended posterior portion of the pelvic floor is lifted by rectopexy. The load of the abdominal contents will be directed after the rectopexy towards the unprotected anterior portion of the pelvic floor and will worsen the pre-existing dysfunctions. This drawback was mentioned in many publications on rectopexy over the last hundred years and efforts were made to stabilize the pelvic floor as a whole. None of them resulted in routine practice. The drawback of the efforts made was, that they were made either by surgeons or by gynaecologists, never by an interdisciplinary team.

We report on an interdisciplinary co-operation between a colorectal surgeon and a gynaecologist with respect to preoperative diagnosis as well as operations. We use a standardized interdisciplinary operation for the above described severe cases which we call the pelvic floor-lifting.

The main aim of the study is to evaluate the feasibility of the interdisciplinary pelvic floor-lifting operation.

Study design, materials and methods

All twenty patients upon whom we have performed pelvic floor-lifting between July 2007 and July 2010 are included in the study which is ongoing. All patients were informed in detail of the extent of the operation and gave their written consents.

The pelvic floor-lifting operation is a combination of four well established operative steps including the application of surgical principles for hernia repair. Each of them is carried out by the respective specialist. The non-absorbable mesh which is used for the Wells rectopexy is used, in addition, to perform a colpopexy and also a repositioning and pre-peritoneal mesh-reinforcement of the pouch of Douglas = Douglas-lifting. The optional final step of the operation is a Burch/Hirsch colposuspension.

Results

Age of patients: 46 to 82 years, mean 67 years.

Parity: Five patients para III and IV, nine patients para I and II, six patients had no vaginal delivery.

Duration of the operation: 80 to 220 minutes, mean 140 minutes.

Number of the single operative steps: 20 rectopexies (4 with sigmoidectomies), 18 colpopexies (4 of them uteropexies), 20 Douglas-liftings, 18 colposuspensions.

Complications: One femoral palsy left (remission after one month), one recurrent vaginal vault prolapse, one suicide one month after the operation, two haematomas.

Pre- and postoperative anatomical and functional colorectal diagnoses:

<i>anatomical</i>	<i>pre</i>	<i>post</i>	<i>functional</i>	<i>pre</i>	<i>post</i>
Global pelvic floor descent	18	0	No fecal incontinence	1	9
Rectal prolapse		6	Fecal incontinence I		7
Anal prolapse		0	Fecal incontinence II		8
Internal rectal prolapse		13	Fecal incontinence III		4
Anterior rectocele	17	0			
Posterior rectocele	15	2			

Pre- and postoperative introital sonography diagnoses:

	<i>pre</i>	<i>post</i>
Urethra in normal position, stable; empty bladder after voiding	6	19
Instability of the urethra	14	0
No cystocele	2	18
Moderate cystocele	11	1
Extensive cystocele	7	1

Pre- and postoperative anatomical and functional urogynaecological diagnoses:

<i>anatomical</i>	<i>pre</i>	<i>post</i>	<i>functional</i>	<i>pre</i>	<i>post</i>
Pelvic organ prolapse stage IV	1	0	No urinary incontinence		5
Vaginal vault prolapse	3	1	Stress urinary incontinence I to II	10	5
Anterior vaginal wall prolapse	5	0	Stress urinary incontinence II to III	5	0

Cystocele	6	1
Rectocele	5	0

Interpretation of results

Age of patients: Severe pelvic floor descent is a disease of elderly patients.

Parity: Birth trauma is much less important as a cause for posterior pelvic floor descent when compared to anterior pelvic floor descent.

Number of the single operative steps: Only four sigmoidectomies were carried out. Lifting and stabilizing the pouch of Douglas along with rectopexy restricts the mobility of a normal "redundant" sigmoid and normal function may be expected.

Complications: The femoral palsy was most likely caused by the abdominal retractor. Insufficient fixation to the mesh was probably the reason for the recurrent vaginal vault prolapse. The tragic suicide (on Good Friday) reminds of the well-known fact in literature, that patients with anal incontinence are often severely psychologically altered.

Pre- and postoperative anatomical and functional colorectal diagnoses: Good over-all anatomical results were achieved. Out of six rectal prolapses remained one anal prolapse. The fecal incontinences improved substantially with respect to their degrees.

Pre- and postoperative introital sonography diagnoses: There is a high incidence of concomitant defects of the anterior portion of the pelvic floor. Introital sonography is an excellent tool for the evaluation of the anatomical results of colpexy.

Pre- and postoperative anatomical and functional urogynaecological diagnoses: Good over-all anatomical results were achieved except for the recurrence of one vaginal vault prolapse. The urinary incontinences improved substantially with respect to their degrees.

Concluding message

The results of a pelvic floor-lifting operation are equal to those of a rectopexy plus an urogynaecological incontinence operation. Moreover, the repositioning and mesh reinforcement of the pouch of Douglas (Douglas-lifting) may be considered a durable barrier not only for the protection of the operative result against the abdominal load but also for the prevention of recurrent descent and prolapse. We encourage more interdisciplinary teams to add their personal experiences.

<i>Specify source of funding or grant</i>	none
<i>Is this a clinical trial?</i>	Yes
<i>Is this study registered in a public clinical trials registry?</i>	No
<i>Is this a Randomised Controlled Trial (RCT)?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	No
<i>This study did not require ethics committee approval because</i>	The operation studied is a combination of well established surgical and urogynaecological operative steps. Each of them is carried out by the respective specialist.
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes