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POSTERIOR VAGINAL WALL SURGERY AND BOWEL - SEXUAL DYSFUNCTION: A DEEPER INSIGHT

Hypothesis / aims of study

Posterior vaginal wall repair has a long-term tradition. However only in 1997 some authors[1] raised gynaecologist's attention to the sexual and bowel morbidity related to posterior colporraphy. Since then posterior vaginal surgery has been commonly considered detrimental for bowel and coital function. However in the last decade the concept of posterior surgical repair has evolved from the standard colporraphy (midline plication of the endopelvic fascia, frequently incorporating levator ani muscle) to the concept of site specific fascial repair. The last approach has been tested by various authors [2] with encouraging results in terms of bowel and sexual function. Nevertheless the functional outcome of vaginal surgery remains unpredictable. To overcame this problem the adoption of thorough bowel function assessment with standardised definitions and symptoms severity scoring systems in surgical series are necessary, but unfortunately lacking in the literature. Aim of this study is to assess the outcome of posterior vaginal wall surgery on bowel and sexual function with a standardised protocol.

Study design, materials and methods

Since 1999 women undergoing posterior vaginal wall repair at our institution were prospectively included in this study. All the women underwent preoperatively a standard history taken including bowel and sexual function assessment, and an urogynaecological examination. Constipation was investigated as whether hard stools and/or straining at stool > 25% of the time (difficult stool passage) and/or less than 3 stools per week > 25% of the time (decreased stool frequency). Wexner's severity scoring system (score 0 - 30) has been adopted. For anal incontinence (A.I.) we used a same Author's score (score 0 – 20). The women were then classified as sexually active or not and dyspareunia was also investigated. Patients underwent posterior vaginal surgery alone or in combination with other procedures (39% hysterectomies and/or other vaginal segment repair in 40% of cases). Follow-up was at 3, 6, 12 months and yearly since the operation with the same pre-operative protocol. A stage IIp (ICS POP-Q system) was considered as anatomical recurrence. Data were collected and stored onto a database. SPSS software was used for statistics ($p<0.05$ for significance).

Results

One-hundred-and-sixteen patients were included. In table 1 patients features are reported.

Table 1.: Characteristics of 116 women included in the study

History	**116 patients n.**
Mean age (years)	64 (range 35- 87)
Parity	2,3 (range0-10)
Menopausal status	100 (86%)
Mean BMI	26 (range17-38)
Previous colorectal surgery	8 (7%)
Previous Hysterectomy	22 (19%)
Previous Hysterectomy and /or prolapse repair	40 (35%)

At surgery 82 women underwent a recto-vaginal septum reconstruction (either autologous or reinforced with mesh), 34 patients underwent a standard posterior repair. Mean time at follow-up was 22.8 months (range 3–65). A posterior vaginal wall recurrence was observed in 8 patient (7%).

In table 2 the comparison between bowel and sexual symptoms pre and postoperatively are reported

Table 2.: Pre and postoperative bowel and sexual function

	Preoperative n.	**Postoperative n.**	***Value of p***
Constipation	64/115 (55%)	39/116 (34%)	*0.002*
Difficult stool passage	62/64(97%)	38/39 (97%)	*n.s*
Mean Wexner's score for Constipation	11.9	10.4	*n.s §*
Anal Incontinence (A.I.)	25/107 (23%)	12/109 (11%)	*0.019*
Mean Wexner's score for A.I.	6,8	3.7	*n.s. §*
Sexually active	45/84 (53,6)	47/95 (49,5)	*n.s.*
Dyspareunia	23/84 (27,4)	23/95 (24,2)	*n.s.*

Fisher's exact test; § Student t-test

In figures 3 and 4 bowel symptoms modifications after surgery are analysed

Figure 3.:Bowel constipation: the effect of Posterior vaginal surgery

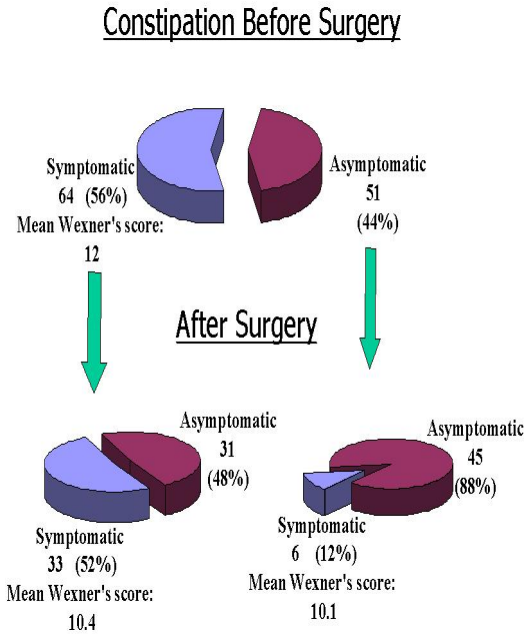
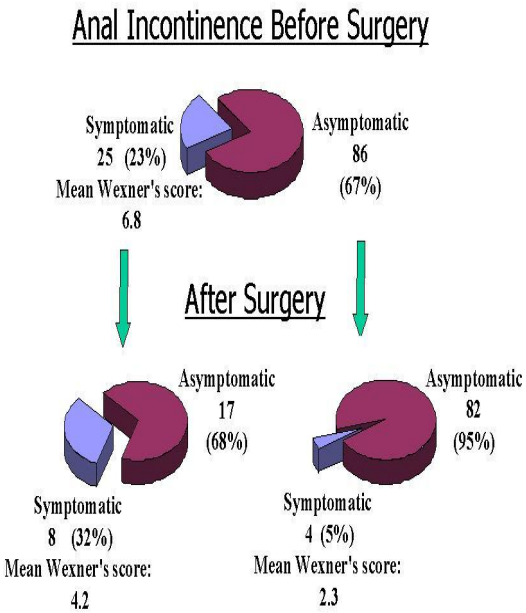


Figure 4.: Anal Incontinence the effect of Posterior vaginal surgery.



In anatomical failures a higher rate of constipation has been observed at follow-up (63% vs 32%), while the rate of anal incontinence differed slightly (13% vs 10%).

Interpretation of results

Posterior vaginal repair significantly improves bowel symptoms. Half of patients complaining of constipation has a symptom resolution; no symptoms severity worsening was observed. The same trend was observed for anal incontinence (two-thirds became asymptomatic). Very few patients developed new symptoms with comparable severity. Significantly fewer women remain sexually active after surgery but the rate of dyspareunia is comparable with the preoperative condition. We reported a high anatomical success rate with a substantial follow-up length. Nevertheless functional outcomes in failures tend to be worse.

Concluding message

Anatomical restoration of the posterior vaginal compartment seems to be crucial in correcting bowel dysfunction in some patients while it is ineffective in others and, in very few cases, it is responsible for the problem. Future research should be addressed at the identification of factors predictive of functional outcome.

References

1. Posterior colporraphy: its effect on bowel and sexual function. Br J Obstet Gynaecol 1997;104:82-86
2. Outcome after rectovaginal fascia reattachment for rectocele repair. Am J Obstet Gynecol 1999;181:1360-4