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FOLLOW-UP OF WOMEN STUDIED WITH ANAL ENDOSONOGRAPHY AFTER THEIR FIRST DELIVERY: THE EFFECT OF SUBSEQUENT DELIVERIES ON ANAL CONTINENCE.

Aims of the study: to study the evolution of anal continence status after a first vaginal delivery.

Method: a cohort of 100 women delivering vaginally their first child recruited in a study of anal incontinence after childbirth was followed during three years. An evaluation of anal continence was performed three months and three years after the index delivery using a postal questionnaire. The questionnaire was shown to be accurate in detecting anal incontinence, with a good correlation with an interview with a proctologist (kappa=0.73). In addition to the assessment of anal incontinence by the questionnaire, the integrity of the anal sphincter was controlled by anal endosonography with a Bruel and Kjaer rotating probe type 1850 three months after the first delivery. A stratified analysis was performed and proportions compared using the Fisher's exact test.

Results: Among the 100 primipara delivering vaginally, 90 responded to the anal incontinence questionnaire three months after delivery and 76 three years after delivery. Anal endosonography was performed in 87 women three months after delivery. After delivery, episodes of anal incontinence were reported by 24/90 (27%; 95%CI 18-37%) women and were still present three months after delivery in 16/90 (18%; 95%CI 11-27%). Three years after delivery, 11/76 (14%; 95%CI 7-24%) women reported anal incontinence. However, three years after their first delivery, the proportion of women reporting anal incontinence decreased to 5/53 (9%; 95%CI 3-21%) in women who had no subsequent delivery and increased to 6/23 (26%; 95%CI 10-48%) in women who delivered again in the interval (OR 3.4; 95%CI 0.9-12.6). An anal sphincter defect was diagnosed in 46/87 (53%; 95%CI 42-64%) women three months after delivery. Anal sphincter defects were associated with anal incontinence, whether transient shortly after delivery (Odds Ratio OR 6.5; 95%CI 1.9-21.3) , three months after delivery (OR 7.7; 95%CI 1.6-36.5) or three years after delivery (OR 5.6; 95%CI 1.1-27.9). The prevalence of anal incontinence three years after delivery was highest (5/13 39%, 95%CI 14-68%) in women in whom an anal sphincter defect was disgnosed by endosonography after their first delivery and who delivered again in the interval.

Conclusion: Anal incontinence after childbirth is associated with defects of the anal sphincter observed by anal endosonography. Although the overall prevalence of anal incontinence diminishes with time, numerous women remain affected. Multiple deliveries increase the risk of anal incontinence, particularly among women for whom an anal sphincter defect is observed after the first delivery.

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POSTERIOR COLPORRHAPHY IS SUPERIOR TO THE TRANSANAL REPAIR FOR TREATMENT OF POSTERIOR VAGINAL WALL PROLAPSE

AIMS OF STUDY: Coloproctologists and gynecologists approach the rectocele differently. Traditionally, coloproctologists address the symptom of impaired bowel emptying and gynecologists address the sign and symptom of vaginal prolapse. Many coloproctologists prefer the transanal approach to rectocele repair whilst gynecologists prefer the posterior colporrhaphy . A single retrospective, nonrandomized study which has compared the 2 techniques found a difference only with respect to pain and high post operative morbidity [1]. Therefore, we have sought to evaluate the effectiveness and to identify differences between the two methods of rectocele repair.

METHODS: Women with symptomatic rectoceles who failed conservative treatment and desired surgery underwent physiological studies. If eligible for surgery, they were randomly assigned to posterior colporrhaphy (PC) by a

gynecologist or transanal repair (TA) by a coloproctologist. All patients had (1) symptoms of prolapse or (2) symptoms of impaired bowel emptying. If they had the latter, it was required that isotope defecography demonstrate incomplete rectocele emptying and anorectal manometry exclude a low compliance rectum. PC was performed through a posterior vaginal wall incision with plication of the levator ani. TA was performed by dissecting free the anterior rectal mucosa and longitudinally plicating the inner circular muscle. Pre and post op standardized questionnaires and rectal and vaginal exams were performed, the last according to the International Continence Society criteria. Rectocele size per rectum was scored as small (1), medium (2), or large (3). The Mann-Whitney test was used to evaluate differences between groups.

RESULTS: Of 63 women randomized , 57 (24 PC, 32) underwent surgery. The mean age was 56 years (35-74); median parity 3 (0-8); mean birthweight of largest child was 3.7 kg (2.3-4.9). Previous operations included hysterectomy (36), abdominal incontinence operation (34), anterior colporrhaphy (18), posterior colporrhaphy (8), and sacrocolpopexy (2). Concurrent operations included: vaginal hysterectomy (7), anterior repair (3), colposuspension (2), abdominal hysterectomy (1), enterocele repair (1), and anal sphincter repair (1). By chance significantly more vaginal hysterectomieswere performed with PC (7 vs 1, Fischers' exact test, p=0.016) . Mean follow-up time was 25 months (8-37 months).

No patient had less than 8 months follow-up. BY September of 1998, only six of 57 patients (11%) were unavailable for follow-up; one of these six had had a subsequent PC one year postop and one died. Nine of 33 TA patients required or are booked for further surgery for enterocele; two of 24 PC patients required subsequent enterocele repair (p=0.10). One in each group required further rectocele repair by the alternative method.

Patients who did not undergo subsequent posterior wall or apical vaginal repairs are summarized below. A minus sign (-) denotes a less severe postoperative symptom score: a plus sign (+) denotes a worsening of the score.

SYMPTOM	Average change in score PC, N=21	Average change in score TA, N=25	P
Impaired emptying	-4.7	-4.0	.34
Anal incontinence	-2.3	+0.2	.98
Sense of prolapse	-1.3	-0.4	.62
Pain	-0.95	-1.1	.20
SIGN	PC, N=20	TA, N=25	P
Posterior vaginal prolapse stage	-1.4	-0.2	<.0001
Rectal exam	-1.4	-1.0	.40

Analysis of dyspareunia revealed no statistically significant differences. However, one PC patient who underwent perineotomy for vaginal stenosis still experiences significant dyspareunia; one, is incapable of coitus; and one chose a tight PC for her post-TA enterocele. All patients who had only a TA repair were capable of coitus.

CONCLUSIONS: The TA repair is not adequate for treatment of posterior vaginal wall prolapse: it does not address coincident enterocele and may contribute to enterocele development and the need for further surgery. PC may cause apareunia in a small number of cases.

[1] Rectocele repair. Four years' experience. *Dis Colon Rectum* 1990;33: 684-687.