

FECAL INCONTINENCE AFTER ANAL SPHINCTER INJURY DURING VAGINAL DELIVERY; THE EFFECT OF INCREASING AGE AND MENOPAUSE

Hypothesis / aims of study

Increasing age and postmenopausal status have an increasing effect on the number of women with complaints of fecal incontinence with a history of anal sphincter injury during vaginal delivery.

Study design, materials and methods

Case-control study using postal questionnaire. All 171 women operated for anal sphincter injury immediately after delivery in the period 1971- 1990, and controls, matched for parity and date of delivery, were sent a questionnaire in 1995 containing questions regarding complaints of fecal and urinary incontinence. All 278 responders to this first questionnaire, 147 women with anal sphincter injury and 131 controls, received a second questionnaire, sent out in 2004 and 2005, containing the same questions on complaints of incontinence. Questions regarding sexual complaints were added to the original questionnaire. The study was approved by the local Medical Ethical Committee. Statistical testing of comparisons between index cases and controls was performed using McNemar's test or Wilcoxon's signed-rank test for qualitative or continuous data. Comparisons between both groups of the functional outcomes were evaluated with Chi-squared test.

Results

102 women with anal sphincter injury and 68 controls responded to the second questionnaire to the date of March 15th 2005, with ongoing inclusion. The median follow-up was 24 years. In 1995 six women were postmenopausal, five with anal sphincter injury and one in the control-group. In 2004 and 2005, 52 women were postmenopausal, 33 women with anal sphincter injury and 19 controls.

Complaints	Cases		Controls	
	1996 (n=147)	2004 (n=102)	1996 (n=125)	2004 (n=68)
Anorectal complaints	50 (40%) [‡]	65 (64%) [‡]	19 (15%) [*]	16 (24%) [†]
Fecal incontinence	39 (31%) [‡]	57 (56%) [‡]	16 (13%) [*]	11 (16%) [†]
Fecal urgency	32 (26%) [*]	32 (31%) [†]	7 (6%) [*]	8 (12%) [†]
Fecal soiling	12 (10%)	15 (15%) [†]	1 (1%) [*]	3 (4%) [†]
Fecal incontinence during intercourse		13 (13%) [†]		0 [†]
Superficial dyspareunia		22 (22%) [†]		6 (9%) [†]

(^{*} p < 0,01 for cases 1996 vs. controls 1996, [†] p < 0,01 cases 2004 vs. controls 2004, [‡] p < 0,05 for cases 1996 vs. cases 2004)

The risk of anorectal complaints appeared to be independent of the menopausal status in both women with previous anal sphincter injury as in controls (p=0.37 res. p=0.35). In the group of 61 women with anal sphincter injury without anorectal complaints in 1996 who responded to the second questionnaire, 28 (46%) developed new anorectal complaints. Only 32% of these were postmenopausal (p = 0.92).

Interpretation of results

Anal sphincter injury during delivery was and is a major risk factor for the development of fecal incontinence, which becomes even more pronounced with increasing age. Our results did not corroborate the widespread theory that postmenopausal status has a deteriorating effect on these complaints. Anal sphincter injury during delivery is associated with long-lasting complaints of incontinence during intercourse and dyspareunia, which is a new point of view

in the discussion of treatment and follow-up of women with anal sphincter injury during delivery.

Concluding message

The risk of fecal incontinence after anal sphincter injury during delivery increases with increasing age, independent of menstrual status. The association of anal sphincter injury with sexual problems implies that future research on this subject should have attention for the sexual wellbeing of women.