

WHAT ARE THE PREVALENCES OF DEFECATION SYMPTOMS DURING PREGNANCY AND AFTER CHILDBIRTH?

Hypothesis / aims of study

The reported prevalences of anal incontinence of stool in primiparous women ranges from 2% to 6% and incontinence of flatus from 13% to 25%. The prevalences of other defecation symptoms during pregnancy and after childbirth are largely unknown. The objective of this study was to report on the prevalences of defecation symptoms during pregnancy and after childbirth.

Study design, materials and methods

At 12 weeks gestation 423 nulliparous women were recruited from eight midwifery practises. They took part in a prospective longitudinal cohort study on the effects of pregnancy and childbirth on the pelvic floor. The study was approved by the Medical Ethics Committee. All women signed an informed consent. The women received four self-report questionnaires. The questionnaires were sent during pregnancy at 12, 24 and 36 weeks gestation. One questionnaire was sent 3 months after childbirth. We developed a questionnaire about defecation symptoms, Defecation Distress Inventory (DDI). The questions were selected after reading of the available literature and a structured interview with 20 women pelvic floor dysfunction, who presented at our university medical center. The DDI consists of 9 questions about defecation symptoms. A woman was considered to experience constipation if she replied positively to both of the following two questions: "Do you have less than 3 bowel movements a week?" and to "Do you have to strain > 25% of the time to have bowel movement?". A woman was considered to experience painful defecation if she replied positively to one of the following two questions: "Do you experience pain related to urgency for bowel movement?" and to "Do you experience pain during or shortly after a bowel movement?". A woman was considered to experience flatus incontinence if she replied positively to the questions: "Do you experience incontinence for flatus?". A woman was considered to experience fecal incontinence if she replied positively to one of the following two questions: "Do you experience incontinence for liquid stool?" and to "Do you experience incontinence for solid stool?". A woman was considered to experience feeling of incomplete evacuation if she replied positively to the question: "Do you experience the feeling of incomplete evacuation?". A woman was considered to experience the sensation of anal blockage if she replies positively to the question: "Do you experience the sensation of anal blockage?". The statistical analysis was done in SPSS 10.0 for Windows.

Results

The mean age was 30,4 (SD 3,7). At 12 weeks gestation 308 (72%), at 36 weeks gestation 293 (69%) and 3 months after childbirth 277 (65%) of the 423 women experienced one or more defecation symptom. Table 1 shows the defecation symptoms in relation to gestational age and childbirth.

In table 2 the women were divided into two groups. In the first group the onset of defecation symptoms was during pregnancy and in the other group the onset of symptoms occurred after childbirth. The table shows how many women with the onset of symptoms during pregnancy still have symptoms 3 months after delivery and secondly how many women developed de novo symptoms after childbirth.

Interpretation of results

The prevalences of painful defecation, flatus incontinence and feeling of incomplete evacuation are high from early pregnancy on. Therefore it seems unlikely that these symptoms are associated with the enlargement of the uterus. In about half of the women the defecation symptoms will disappear after childbirth. About 20 percent of the women developed de novo flatus incontinence, painful defecation and feeling of incomplete evacuation symptoms.

Concluding message

All the symptoms related to difficult defecation are highly prevalent during pregnancy, 50 percent of these symptoms will resolve and in about 20 percent of the women de novo symptoms occur after childbirth. To our surprise fecal incontinence symptom also occurred in early pregnancy, in which anal sphincter lesions are not suspected. With respect to the determinants of the occurrence of de novo fecal incontinence we are further analyzing our data.

Table 1 The prevalences of defecation symptoms

	12 weeks gestation	36 weeks gestation	3 months after childbirth
Constipation	37 (8,7)	17 (4,0)	21 (5,0)
Feeling of incomplete evacuation	187 (44,2)	155 (36,6)	125 (29,6)
Sensation of anal blockage	41 (9,7)	36 (8,5)	56 (13,2)
Painful defecation	125 (29,8)	107 (25,3)	124 (29,3)
Flatus incontinence	151 (35,7)	181 (42,8)	147 (34,8)
Fecal incontinence	20 (4,7)	13 (3,1)	25 (5,9)

The values are numbers (percentages)

Table 2 The prevalences of defecation symptoms 3 months after delivery in relation to the onset of symptoms

	Onset during pregnancy	Onset after delivery
Constipation	7/17 (41,2)	14/403 (3,5)
Feeling of incomplete evacuation	76/155 (49,0)	48/266 (18,0)
Sensation of anal blockage	14/36 (38,9)	41/385 (10,6)
Painful defecation	49/107 (45,8)	74/314 (23,6)
Flatus incontinence	104/181 (57,5)	42/240 (17,5)
Fecal incontinence	7/13 (53,8)	18/407 (4,4)

The values are numbers (percentages).