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ANAL INCONTINENCE IN WOMEN PRESENTING FOR GYNECOLOGIC CARE: PREVALENCE, RISK FACTORS AND IMPACT UPON QUALITY OF LIFE

Hypothesis / aims of study

To determine the prevalence, risk factors and impact upon quality of life of anal incontinence (AI) in women aged 18 to 65.

Study design, materials and methods

Consecutive women presenting for general gynecologic care to one of seven tertiary centres were given a self-administered, anonymous bowel function questionnaire. Women responding positively to the question "Have you had any accidental leakage of bowel movements or gas in the last 12 months?" were prompted to complete the Fecal Incontinence Severity Index (FISI, 61 point scale) and the Fecal Incontinence Quality of Life Scale (FIQL, 0-5 point scales). A higher score on the FISI indicates worsening incontinence and a higher score on the FIQL indicates better function. Constipation and irritable bowel syndrome (IBS) were defined according to ROME II criteria.

Results

A total of 457 women, with a mean age of 39.9 ± 11 years (range 18-64) and an average BMI of 27.4 ± 6.9 , comprised the cohort. The racial background of the cohort was 66.1% white, 23.2% black, 1.8% Asian and 8.9% other/unknown. The median number of bowel movements reported was 7 (25th, 75th quartiles: 5, 8) per week. Stool consistency was predominately well-formed (52.1%), followed by compacted pellets (14.9%), soft, poorly formed lumps (8.8%), non-cohesive/ semi-liquid (7.7%), pellet-like (2.8%) and liquid (1.1%). Other women (12.6%) chose multiple forms or did not answer. Of products used at least once a month, fibre was the most common (11.4% of cohort), followed by laxatives (9.4%), stool softeners (6.1%) and enemas (0.4%). Of the total cohort, 36.1% reported straining, 35.1% reported lumpy or hard stools, 32.1% complained of feeling of incomplete emptying, 24.3% reported feeling passage of stools was "blocked", 9.4% reported splinting, and 14.6% of women reported less than 3 bowel movements per week. Overall, 26.4% met ROME II criteria for constipation. A total of 16.3% women reported abdominal pain with change in stool frequency, 28.4% reported pain resolution after bowel movement and 14.6% reported abdominal pain associated with a change in stool appearance. Rome II criteria for IBS were met by 17.2% of the study cohort. The prevalence of AI was 28.4% [95% CI, 24.4- 32.8]. Of these women, 29.3% had only flatal incontinence, 54.3% reported liquid loss and 54.8% had solid loss. The prevalence of combined anal and urinary incontinence (UI) was 9.9%. Significant risk factors after univariate analysis were UI, vaginal delivery, constipation, IBS, and increasing age and BMI. After logistic regression, the presence of IBS (OR 3.22, 1.75-5.93), constipation (OR 2.11, 1.22-3.63), increasing age (OR 1.05, 1.03-1.07 per year) and BMI (OR 1.04, 1.01-1.08 per unit) remained significant. The mean FISI score was 20.6 ± 12.3 . There was significant correlation between the FISI scores and the FIQL scores for liquid and solid stool loss, but not flatal incontinence. Women with only flatal incontinence scored higher and women with liquid stool loss scored lower on all four scales of the FIQL.

FIQL scale	Flatus only (n=36)	Solid +/- flatus (n=30)	Liquid +/- flatus (n=57)	P value
Lifestyle	3.9 ± 0.3	3.7 ± 0.5	3.5 ± 0.6	0.003
Coping	3.8 ± 0.4	3.5 ± 0.8	3.1 ± 0.7	<0.001
Depression	4.3 ± 0.5	3.8 ± 0.7	3.5 ± 0.8	<0.001
Embarrassment	3.8 ± 0.4	3.4 ± 0.7	3.1 ± 0.8	<0.001

Most women (64.3%) reported AI symptoms had been present for 3 years or less. Only 11.4% of women with AI had sought care and only 17.1% of women had ever been asked by a health care provider about AI. Predictors of health care seeking included loss of solid stool

(OR 1.16, 1.03-1.30) and lower scores on the FIQL embarrassment scale (OR 4.90, 1.96-12.35).

Interpretation of results

Bowel habits in a general gynecologic population have not been previously well-described. Anal incontinence, constipation, and irritable bowel are prevalent in women presenting for gynecologic care. Liquid stool incontinence has the greatest impact upon quality of life.

Concluding message

AI continues to represent a large area of unmet medical need.