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PERI-PARTUM STRESS INCONTINENCE IN A RACIALLY DIVERSE OBSTETRIC POPULATION.

Hypothesis / aims of study

To determine rates of urinary incontinence in a racially diverse, tertiary care obstetrical population during the third trimester and postpartum using a validated screening questionnaire.

Study design, materials and methods

Third trimester prenatal patients receiving obstetric care at University Medical Center between March and November 2003 were invited to participate in this IRB approved study. Women with a maternal history of pre-existing diabetes mellitus, active cardiac disease excluding mitral valve prolapse, neurological disease, urinary tract surgery, or congenital genito-urinary abnormalities were excluded. Enrollment of patients with urine dipstick positive for leukocyte estrace and nitrates was deferred until the dipstick was normal following treatment. Third-trimester participants completed the 15 item, validated Medical, Epidemiological and Social Aspects of Aging (MESA) questionnaire. Part I of the MESA consists of nine questions regarding symptoms of stress incontinence. Part II of the questionnaire consists of six questions detailing symptoms of urge incontinence. Subjects were categorized as "incontinent" when any MESA answer of "sometimes" or "always" was recorded on either subscale. Stress and urge subscales were also analyzed individually. The MESA was re-administered to participants during a six to eight week post-partum visit.

Results

One hundred and thirteen women with a mean age of 28 years (range 17-41) completed antenatal and postpartum MESAs. The study population was racially diverse with 40% African American, 33% Caucasian, and 20% Hispanic. Forty-two percent were primiparous, 33% nulliparous, and 26% multiparous at the start of the study. Forty percent of patients had at least one prior vaginal delivery and 20% had at least one prior cesarean. Fifty-two percent had a spontaneous vaginal delivery, 39% cesarean, 1% vaginal birth after cesarean and 7% operative vaginal delivery during the study period.

Seventy-four percent (83 of 113) of pregnant patients in the third trimester were categorized as incontinent. Thirty-two percent (36 of 113) had pure stress incontinence, 4% (5 of 113) urge incontinence and 37% (42 of 113) mixed incontinence. Overall, incontinence rates decreased postpartum to 44% (50 of 113): 21% (24 of 113) of participants reported pure stress incontinence, 3% (3 of 113) urge incontinence and 20% (23 of 113) mixed incontinence. There was no difference in antenatal or postpartum rates or types of incontinence by race or parity. Only 4% (5 of 113) of women developed de novo incontinence postpartum: 3 reported pure stress incontinence and 2 reported urge incontinence.

Forty-five percent of women who were incontinent antenatally (38 of 83) had resolution of their symptoms postpartum: 53% (19 of 36) with stress incontinence, 80% (4 of 5) with urge incontinence, and 36% (15 of 42) with mixed incontinence. Fifty-five percent (45 of 83) of women with antenatal incontinence had persistence 6 to 8 weeks postpartum. Sixty percent (27 of 45) of these women had antepartum mixed incontinence, 38% (17 of 45) had stress incontinence and 2% (1 of 45) had urge incontinence.

Interpretation of results

The validated MESA questionnaire identifies more women with antenatal and postpartum urinary incontinence than currently described in the literature. Three quarters of women in our racially diverse population experienced antenatal urinary incontinence, and nearly half reported postpartum urinary incontinence. Consistent with previous reports, one third of our study population had antenatal stress incontinence. However, almost 70% of our population had stress or mixed symptoms. Urge incontinence alone was uncommon in our population. While 80% of urge incontinent women became asymptomatic postpartum, only half of stress incontinent women and a third of mixed incontinent women regained continence after delivery. The majority of women with persistent postpartum urinary incontinence experienced

stress or mixed incontinence antepartum. This population had a low rate of de novo incontinence; however, this may be due to the high rate of antenatal incontinence.

Concluding message

Peripartum women can be successfully screened for urinary incontinence using the MESA questionnaire. The MESA seems to identify more women with urinary incontinence than previously reported non-validated measures. Future studies will assess incontinence rates further out from delivery using validated questionnaires