Received Date: 22/06/2015

Accepted Date: 14/10/2015

Article Type: Mini-commentary

Mini-commentary on 2015-OG-15261R1: 'Trends in urinary incontinence in women between 4 and 24 months postpartum in the EDEN cohort.'

Postpartum urinary incontinence: Asking the right questions Megan O. Schimpf, M.D. Associate Professor, Obstetrics and Gynecology Female Pelvic Medicine and Reconstructive Surgery University of Michigan L4000 Women's 1500 E Medical Center Drive Ann Arbor, MI 48109 Phone (734) 647-5866 utł Fax (734) 647-9727

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This is the author manuscript accepted for publication and has undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the <u>Version of Record</u>. Please cite this article as <u>doi:</u> 10.1111/1471-0528.13809

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The connection of urinary incontinence (UI) to pregnancy and delivery is a known unknown. These conditions are linked, but exact causality is still being defined. Further, immediately postpartum women are an understudied population. Quiboeuf et al report on symptomatic UI in women between 4 and 24 months postpartum assessed via mailed questionnaire. Prevalence of UI remained about 20% at the two timepoints, although 50% of women experienced remission at some time. Persistence of UI was more frequent in older, more parous women who were breastfeeding or pregnant again at time of follow-up. Women who delivered via Cesarean section were more likely to have UI resolution, whereas women who became pregnant again were more likely to experience the onset of new UI.

Studies about postpartum UI should include reliable, detailed pregnancy and delivery information with discrete symptom questionnaires and long-term follow-up at multiple time points including clinical examinations to truly understand symptom progression and causation. One such cohort at 5-10 years after first delivery using validated questionnaires for different types of UI and prolapse symptoms has proven the association of spontaneous vaginal delivery with stress UI (odds ratio [OR] 2.9, 95% confidence interval [CI] 1.5-5.5) and with clinically significant prolapse (OR 5.6, 95% CI 2.2-14.7). The association for operative vaginal delivery was even stronger (Handa et al. *Obstet Gynecol.* 2011;118:777-84).

Stress UI causally stems from peripartum trauma impacting the urethral closure mechanism and urethral mobility (Thomason et al. *Int Urogynecol J Pelvic Floor Dysfunct*. 2007;18:147-51). Causality for urgency UI is far less strong, if present at all. Colloquially patients refer to any of this UI as "leakage", and understandably find it distasteful. But as researchers and clinicians we must separate stress and urgency UI for treatment and mechanistic reasons. Quiboeuf et al asked patients a yes/no question about UI rather than a more thorough symptom analysis. Understanding UI remission is challenging without the context of what type of UI women were experiencing. Urgency incontinence might persist before, during and after pregnancy related to a multitude of factors. If this is persistently present in the background, stress incontinence truly linked to pregnancy could occur and resolve undetected by a simple yes/no question assessing for 'any urine leakage'.

While broad, population-based questionnaire studies such as this can access more women, subjectivity of memory and social pressure may impact responses. Answers given during telephone interviews concerning UI seem to underestimate the true prevalence when women later present for clinic visits, underlining the importance of pursuing future work using objective, quantified measures reflective of symptom type and severity, clinical exams and testing to deepen our understanding (Thomas et al *Neurourol Urodyn.* 2010;29:734-40). We have a dual goal of wanting to treat incontinence now in the patients experiencing this condition, as well as to understand the etiology, progression and connection to

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symptoms later in life. As this study attempts, charting the symptoms is a step toward understanding causality, a step toward intervention and treatment, and then ultimately a step toward prevention.

No disclosures. The ICMJE disclosure form is available as online supporting information. anusc Juth