

RISK FACTORS FOR URINARY INCONTINENCE IN PUERPERIUM

Hypothesis / aims of study

To characterize urinary incontinence (UI) during postpartum period according to type, frequency, quantity, situations of leaking urine and UI onset; to investigate the risk factors for urinary incontinence after childbirth.

Study design, materials and methods

This is a case-control study. It were included 344 women (77 cases and 267 controls) up to 90 days postpartum who attended the Obstetrics Clinic of a public, tertiary and education hospital, in the state of Sao Paulo, Brazil, to follow up visit in postpartum period. Designed and validated questionnaire with sociodemographic and clinical data was used.

Results

Cases and controls were similar with regard to sociodemographic variables of the sample (age, race, marital status, education and family income). The most frequent type was stress urinary incontinence (SUI) (45.5%), followed by mixed urinary incontinence (MUI) (28.6%) and urgency urinary incontinence (UUI) (26%). Most women had urinary leakage several times a day (44.2%) in small amount (71.4%), when coughing or sneezing (57.1%). The UI is often initiated during pregnancy (70.1%) and remained after childbirth.

The occurrence of postpartum UI was associated with UI during pregnancy ($p < 0.0001$), multiparity ($p = 0.0291$) and gestational age at delivery greater than or equal to 37 weeks ($p = 0.0193$). When setting up a binary logistic regression model, showed that UI during pregnancy (OR 12.82, 95% CI 6.94 – 23.81, $p < 0.0001$), multiparity (OR 2.26, 95% CI 1.22 – 4.19, $p = 0.0094$), gestational age at delivery greater than or equal to 37 weeks (OR 2.52, 95% CI 1.16 – 5.46, $p = 0.0199$) and constipation (OR 1.94, 95% CI 1.05 - 5.46, $p = 0.0345$) were risk factors for postpartum UI.

Interpretation of results

The high proportion of women with loss when coughing, sneezing or performing physical activities is corresponding to higher rates of SUI and MUI found.

The most important finding of the present study is the strong association between IU during pregnancy and increased risk for postpartum UI (OR 12.82). This suggests that pregnancy itself has an important role in IU puerperal and could explain why cesarean delivery is not always protective factor.

Other risk factors found were multiparity (OR 2.26) gestational age at delivery greater than or equal to 37 weeks (OR 2.52) and constipation (OR 1.94). Gestational age at delivery was investigated in a study that did not prove their association with postpartum UI [1]. The gestational age at delivery may therefore have an influence on UI postpartum to increase the risk of UI during pregnancy, probably because of the greater time and overhead of the pregnant uterus on the suspension structures (ligaments) and support (endopelvic fascia and muscles) of pelvis and greater exposure to the action of progesterone which acts against the continence mechanism [2].

Constipation was investigated in a few studies that have demonstrated its association with postpartum UI and generally just assessing SUI [3]. This association can be explained because constipation is related to repeated stress and overload in perineum. It is known that rectum and lower urinary tract are closely related, because they originate from the same embryonic structure, have the same peripheral innervation and central processing of activity afferent occurs at the same brain areas. Their close proximity suggests that dysfunction in one can influence, even mechanically, the function of the other.

The short postpartum period covered (90 days) limits analysis and comparisons with longer studies. Our data can only be extrapolated to mothers with sociodemographic and clinical characteristics similar to those described.

The fact of UI during pregnancy is a risk factor for postpartum UI is important information for all health professionals who provide care to women and emphasizes the need to incorporate a history of UI in antenatal care. Likewise one should investigate and treat constipation. Besides, efforts to prevent postpartum UI should begin during pregnancy through training of the pelvic floor muscles (TPFM).

Further studies with larger sample sizes are needed to investigate the risk factors according to the types of UI, which will enable the implementation of specific treatments for each type of UI, to reduce the prevalence of this condition.

Concluding message

Stress urinary incontinence was the most common type of urinary incontinence and postpartum leakage occurred in small quantity, but with high frequency, generally when coughing or sneezing. The UI is often initiated during pregnancy and remained in the postpartum period. UI during pregnancy, multiparity, gestational age at delivery greater than or equal to 37 weeks and constipation were risk factors for postpartum UI.

References

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Disclosures

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