

SERUM CONCENTRATION OF THE CCL7 CHEMOKINE IN DIABETIC PREGNANT WOMEN DURING PREGNANCY UNTIL THE POSTPARTUM PERIOD



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Hypothesis / aims of study

CCL7 chemokine response to childbirth injury will be likely absent or compromised in the natural repair process of diabetic pregnant women plus UI. The aim of this study was to investigate the CCL7 levels profile in diabetic pregnant women with urinary incontinence during pregnancy over the first year postpartum.

Study design, materials and methods

Cross-sectional study; CAAE: 20639813.0.0000.5411. The diagnosis of GDM was established between 24th and 28th gestational weeks, by the 75 g-OGTT test according to ADA's criteria. Urinary incontinence was defined according to the International Continence Society and the CCL7 levels was measured by ELISA. Two hundred twelve women were classified into four study groups: normoglycemic continent (NC), normoglycemic incontinent (NI), diabetic continent (DC) and diabetic incontinent (DI), and they were evaluated at six-time-points: 12-18, 24-28 and 34-38 gestational weeks, 24-48 hours, 6 weeks and 6-12 months postpartum.

Results

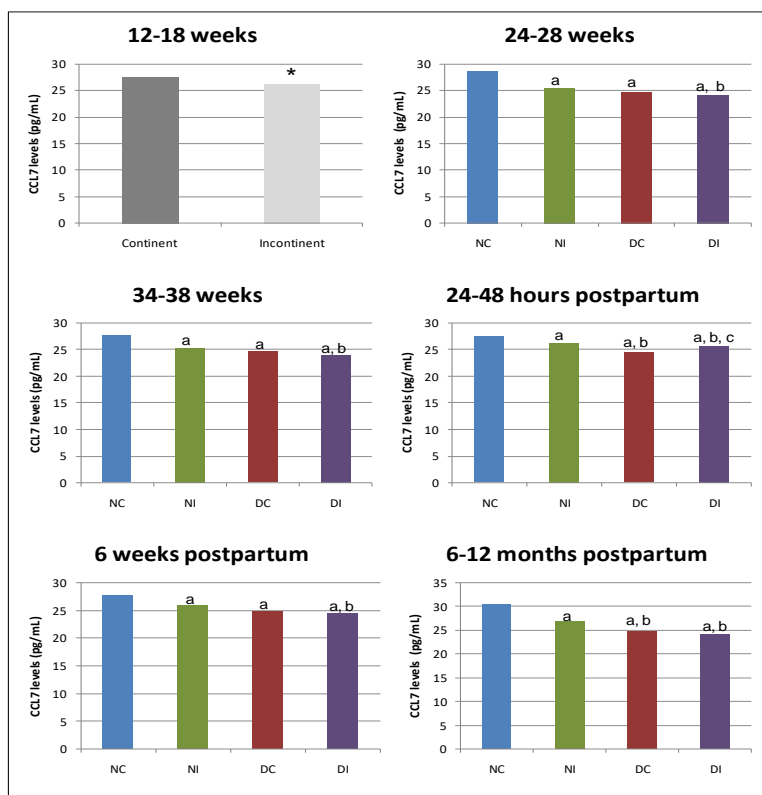


Figure 1. Serum CCL7 levels in diabetic and normoglycemic, continent and incontinent women during pregnancy and postpartum. All analyses were done using SAS software for Windows (v.9.3, SAS Institute Inc., Cary, NC, USA).

* $p < 0.05$ – compared to continent group (t test).

^a $p < 0.05$ – compared to NC group (t test).

^b $p < 0.05$ – compared to NI group (t test).

^c $p < 0.05$ – compared to HC group (t test).

Interpretation of results

These findings of overexpression of CCL7 in the serum of NC group and decreased levels in the DI group, could confirm that diabetes delays the recovery from child birth induced UI, and that CCL7 could potentially be used as a serum marker of injury.