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Are Lactoferrin and Interleukine-6 preterm birth participants?

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Abstract

Background: Preterm birth remains a leading obstetrical complication because of the incomplete understanding of its multifaceted etiology. It is known that immune alterations toward a proinflammatory profile are observed in women with preterm birth, but therapeutic interventions are still lacking because of scarcity of evidence in the integration of maternal and placental interrelated compartments. Objective: To investigate value of Lactoferrin (LF) and Interleukine-6 (IL-6) in the preterm labor.

Material and methods: The study comprised 65 women with spontaneous preterm labor and 65 women with term labor. Maternal plasma concentrations of Lactoferrin and Interleukine-6 were detected by standard test system Aeskulisa Lactoferrin and Best-Vector A-8768 for Interleukine-6 Ref 3307 which (GmbH & Co, Germany) gave an analytical sensitive of 1.0 U/ml for Lactoferrin and 0.131 pg/ml for Interleukine-6.

Results: Plasma levels of Lactoferrin in women with preterm labor were lower ($\mu_{\text{median}} = 0.90$ U/ml) ($p < 0.001$) than in the control subjects ($\mu_{\text{median}} = 40.68$ U/ml). Plasma levels of Interleukine-6 in the plasma in women with preterm were predictably higher ($\mu_{\text{median}} = 51.90$ pg/ml) than that in the control subjects with term delivery ($\mu_{\text{median}} = 21.51$ pg/ml) ($p < 0.001$).

Conclusions: The study findings suggest that plasma levels of Lactoferrin and Interleukine-6 in women with preterm labor may be considered as a promising early biomarker for preterm labor.

Key words: preterm labor, term labor, polyfunctional immunomodulatory proteins, lactoferrin.

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