

Correlations Between High-mobility Group Box 1 and Th1/Th2 Cytokines in Peripheral Blood of Patients with Unexplained Recurrent Spontaneous Abortion

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ABSTRACT The researchers aimed to explore the correlations between high-mobility group box 1 (HMGB1) and T helper cell (Th1/Th2) cytokines in the peripheral blood of patients with unexplained recurrent spontaneous abortion (URSA). After treatment, IL-2, IFN- α and HMGB1 expressions significantly declined, while IL-4 and IL-10 expressions rose in URSA group ($P < 0.05$). HMGB1, IL-2 and IFN- α expressions were significantly lower and IL-4 and IL-10 expressions were higher in the successful pregnancy group than those in the failed pregnancy group ($P < 0.05$). HMGB1 was positively correlated with IL-2 and IFN- α , while negatively correlated with IL-4 and IL-10 ($P < 0.01$). Th1 cell percentage and Th1/Th2 ratio were significantly higher and Th2 cell percentage was lower at 12 and 24 hours, than those under stimulation with HMGB1 at 0 hours ($P < 0.05$). URSA is associated with the shift of Th1/Th2 balance toward Th1. HMGB1 may regulate the balance of Th1/Th2 immune response, as a potential target for treating URSA.