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论文

妊娠期糖尿病母亲新生儿T细胞亚群及NK细胞活性的变化及其与血糖相关的研究

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摘要：

目的 探讨妊娠期糖尿病母亲新生儿T细胞亚群及NK细胞活性的变化及其与患儿出生后24h内微量血糖的关系。方法 选择妊娠期糖尿病母亲足月新生儿33例（观察组）及健康足月新生儿30例（对照组），应用流式细胞术检测出生后24h内静脉血CD3+、CD4+、CD8+T细胞及CD16+CD56+NK细胞；采用血糖检测仪检测新生儿生后24h内的微量血糖，并研究观察组血糖与CD3+、CD4+、CD8+5T细胞、CD4+/CD8+、CD16+CD56+NK细胞有无相关性。结果 观察组新生儿的CD3+，CD4+T细胞计数，CD4+/CD8+比值、CD16+CD56+NK细胞活性均低于对照组新生儿（P＜0.01），微量血糖亦低于对照组（P<0.05），观察组低血糖发生率21.21%，对照组无低血糖发生，两组低血糖发生率差异有统计学意义（P=0.023）。CD3+、CD4+T细胞计数，CD16+CD56+NK细胞活性与微量血糖呈正相关性（P均＜0.05）。结论 妊娠期糖尿病可导致新生儿CD3+、CD4+T细胞计数，CD4+/CD8+比值，CD16+CD56+NK细胞活性下降，导致其免疫功能下降，应加强其围产期护理，预防新生儿期感染的发生。

关键词： 妊娠期糖尿病；新生儿；T细胞亚群；NK细胞活性；血糖

Changes of CD3+, CD4+ and CD8+ T cells and natural killer cells in neonates born to gestational diabetes mellitus mothers and their relationship with blood glucose

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Abstract:

Objective To investigate changes of CD3+, CD4+ and CD8+ T cells and natural killer(NK) cells in neonates born to gestational diabetes mellitus(GDM) mothers and their relationship with blood glucose. Methods33 full-term neonates born to GDM mothers were enrolled as the experimental group and 30 healthy full-term neonates were enrolled as the control group. Numbers of CD3+, CD4+ and CD8+ T cells and activity of NK cells were measured by flow cytometry within 24h after birth. Blood glucose was detected by a trace glucose meter. Results Compared with the control group, numbers of CD3+ and CD4+ T cells, activity of NK cells and the ratio of CD4+/CD8+ were lower in the experimental group (P<0.01). The level of blood glucose in the experimental group was lower (P<0.05). The incidence of hypoglycemia in the experimental group was 21.21%, which was higher than that in the control group (P=0.023). Numbers of CD3+ and CD4+ T cells and activity of NK cells were positively correlated with the level of blood glucose（P＜0.05）. Conclusion GDM could lower numbers of CD3+ and CD4+ T cells, activity of NK cells and the ratio of CD4+/CD8+, and causes damage to the neonatal immune function. Attention should be paid to perinatal health care and prevention of neonatal infection.

Keywords: Gestational diabetes mellitus； Neonate； T cell subsets； Activity of natural killer cells; Blood glucose

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