EXPRESSION AND SIGNIFICANCE OF RHOA/RHO KINASE PATHWAY IN MYOMETRIUM OF PARTU-RIENT WOMEN IN POSTPARTUM HEMORRHAGE BY UTERINE ATONY

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Objective: To investigate the role of RhoA/Rho Kinase Pathway in the postpartum hemorrhage by uterine atony.

Methods: Sixty term pregnant women were selected and divided into 2 groups: 30 in postpartum hemorrhage caused by uterine atony and 30 in control group. The levels of contraction of myometrium were detected by RM6240 biological experimental system; the fluorescence quantitative RT-PCR and Western Blot were applied to detect the expression of RhoA, ROCK I, ROCK II in myometrium.

Results:
①The levels of myometrium contraction in study group were lower than that of their controls(\(P<0.01\)), when adding the Rho kinase inhibitor Y-27632 to strips, the levels of myometrium contraction in both study group and control group were lower than untreated(\(P<0.01\))
②The mRNA expression of RhoA, ROCK I, ROCK II in study group were lower than control group (\(P<0.05, P<0.01, P<0.01\))
③The protein expressions of RhoA, ROCK I, ROCK II in study group were lower than control group (\(P<0.01, P<0.01, P<0.05\))
④Both groups, RhoA mRNA and protein levels in myometrium were positively related to the levels of ROCK I, ROCK II mRNA and protein.
⑤Both groups, RhoA, ROCK I, ROCK II mRNA and protein levels in myometrium were positively related to the levels of myometrium contraction.

Conclusions: Decreased RhoA/Rho Kinase Pathway expression in myo-metrium may be involved in the pathogenesis of postpartum hemorrhage caused by uterine atony.