

Effect of Barium Chloride on muscle contractility of isolated uterus cornu of rabbit

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Abstract

Soluble salts of Barium are widely used in industry but their intake orally causes acute toxicity. Their spread in work environment can cause several complications such as painful contractions of visceral smooth muscles. Aim of this study is to evaluate effect of Barium Chloride on muscle contractility of isolated uterus of rabbit. For this purpose, 1-2 *cm* of Newzeland rabbit's uterus (1300-2300 g) was mounted in organ bath. Bath contained tyrod solution (pH=7.4, 37⁰ C) gassed with 95% O₂ and 5% CO₂. Changes of rabbit uterus contraction in response to different concentration of Barium were recorded by a polygraph using an isometric transducer. The results indicate that Barium chloride can cause significant contraction in the uterus in a dose dependent manner. Probably Barium Chloride exerts its effect by affecting Ca channels depending to voltage or blocking K channels, but knowing the mechanism of action needs more studies. In conclusion abortive effect of BaCl₂ in uterus and abortion in human and animals must be considered particularly when it is consumed.

Keywords: Barium Chloride, Uterus, Rabbit, Infertility, Abortion and Smooth muscle.

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