

Effect of progesterone of the non-genomic response to oestrogen in the rat

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Different effects of oestrogen are mediated separately, by independent mechanisms of action.

Accordingly, it has been shown that it is possible to dissociate these effects under various conditions which stimulate or inhibit responses selectively. The present study describes the action of progesterone on non-genomic responses to oestrogen stimulation which, it has been suggested, are mediated by eosinophils. Oestrogen induced an increase in the number of eosinophils in the rat uterus, an increase in uterine wet weight and oedema of deep endometrial stroma (measured as decrease in cellular density). Progesterone induced a slight oedematous reaction in superficial endometrial stroma but did not induce uterine eosinophilia. Progesterone pretreatment of oestrogen-treated rats did not block oestrogen-induced uterine eosinophilia and oedema but induced an increase in the degranulation of uterine eosinophils. Therefore the number of eosinophils decreased without any change in the uterine oedem