Effects of antidepressants on the contractile activity of estrogen dominated rat uterus in vitro

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1. The effects of the antidepressants, alaproclate, fluoxetine, fluvoxamine, maprotilene, tranylcypromine and zimelidine on rat uterine smooth muscle contraction were investigated.
2. Cumulative concentration-effect curves for oxytocin and KCl were constructed in strips of estrogen-primed rat uterus after incubation with antidepressant compounds (100 µM).
3. Control EC50 values for KCl and oxytocin were 12 mM and 0.3 nM, respectively (n=4).
4. There was no effect of antidepressants on the response to KCl.
5. Alaproclate, fluvoxamine, and tranylcypromine produced slight rightward shifts of the concentration-effect curves to oxytocin whereas fluoxetine produced a large leftward shift. Maprotilene and zimelidine had no effect on the response to oxytocin.