

Effect of bradykinin on the human uterus *in vitro*

SIR,—Compounds inhibiting the motility of the human uterus are of therapeutic interest. Only a few compounds are so far known to exert this effect, for example isoxsuprine (Lish, Hillyard & Dungan, 1960; Bygdeman & Eliasson, 1963a), prostaglandin E (Bygdeman & Eliasson, 1963b) (see also Lehrer, 1965). Landesman, Campbell & Wilson (1963) reported that bradykinin in 0.2–0.4 $\mu\text{g/ml}$ of bath fluid also caused a pronounced inhibition of the motility of isolated strips from non-pregnant, and also pregnant human uteri. These results were at variance with those reported by Berde & Saameli (1961), who could not record any effect of bradykinin on the human uterus *in vitro* or *in vivo*. The present study was made to further elucidate the possible effect of bradykinin on the human uterus *in vitro*.

Myometrial strips were obtained from uteri removed because of myoma. At least four pieces of apparently normal myometrium ($2 \times 2 \times 20$ mm) were taken longitudinally from the corpus of each uterus. Each strip was suspended in a 40 ml cuvette containing oxygenated modified Tyrode solution. Temperature (37.5°), pH (7.35 ± 0.05) and other parameters were kept constant (Bygdeman & Eliasson, 1963b; Bygdeman, 1964). Synthetic bradykinin was dissolved in Tyrode solution and tested on three strips from three different uteri. Bradykinin did not exert any effect on the spontaneous motility in concentrations up to 10 $\mu\text{g/ml}$ bath fluid. The other strips from the same uteri responded in the usual way to prostaglandin E and other compounds tested.

Saameli and Hendricks have also told me that they could not find any effect of an intravenous infusion of 0.5 μg bradykinin/kg/min on the human uterine motility *in vivo*.

The results from the present study *in vitro* are in agreement with those reported by Berde & Saameli (1961) but at variance with those of Landesman & others (1963). The explanation for the discrepancies is not known but may lie with the choice of solvent; it is known that the usual solvent for the synthetic polypeptides made available by Sandoz has a pronounced inhibitory action on the motility of human uteri *in vitro*.

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