PSYCHOSOMATIC FOLLOW-UP OF 70 WOMEN GIVING BIRTH FOR THE FIRST TIME].

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Abstract Text

The effects of acetylcholine, arginine vasopressin (AVP) and oxytocin (OXT) on both catecholamine and steroid secretion have been investigated using the isolated rat adrenal gland perfused in situ. Significant stimulation of steroid (aldosterone and corticosterone) secretion occurred with 1 mumol/l acetylcholine; the ED50 was approximately 20-fold higher (circa 20 mumol/l) than that for catecholamine secretion. The highest concentration of acetylcholine used (100 mumol/l) stimulated aldosterone secretion eight-fold; corticosterone secretion four-fold; noradrenaline and adrenaline secretion three-fold. AVP at 100 nmol/l but not at 1 nmol/l significantly stimulated the secretion of both steroids and catecholamines. OXT had no significant effect on corticosteroid or catecholamine secretion at either concentration. The effects on aldosterone secretion of simultaneous administration of acetylcholine and AVP were additive. No similar effect was seen on corticosterone or catecholamine secretion where the degree of stimulation was the same as for acetylcholine alone. OXT (100 nmol/l) inhibited acetylcholine-stimulated aldosterone secretion but had no effect on acetylcholine-stimulated catecholamine secretion. Carbachol was equipotent with acetylcholine in stimulating steroid secretion from the perfused gland. Our results support the hypothesis that acetylcholine may play a role in the control of steroid secretion by the rat adrenal cortex. They fail to support a role for AVP and OXT in modulating catecholamine secretion by the adrenal medulla except at high concentrations.

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Mesh Headings :-

Chemical List :-Biomarkers, Tumor, Chorionic Gonadotropin, Chorionic Gonadotropin, beta Subunit, Human, Peptide Fragments,

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