69
Effect of angiotensin II (A II) infusions on plasma ACTH in normal man and in Addison's disease. Oelkers, W., Haller, H., Hensen, J. Bähr, V. Dept. of Internal Medicine, Klinikum Steglitz, Freie Universität Berlin, W. Germany

Elevated A II levels stimulate adrenal androgen secretion in 21-hydroxylase deficiency, but the mechanism (direct or via ACTH) remains obscure. We tested the possibility that ACTH stimulates ACTH release in 3 sets of experiments:
1. 5 patients with Addison's disease received two infusions of 3 ng/kg/min of A II for 30 min with a 30 min interval after short-term hydrocortisone withdrawal. Basal ACTH levels were between 70 and 500 pg/ml, and a slight stimulation (insignificant) by A II was observed.
2. 7 healthy males received A II (5 ng/kg/min) and sham infusions on different days in randomized sequence from 3 a.m. to 6 a.m. The average integrated ACTH levels were raised by A II in every single individual. The mean increase (paired t-test) was significant ($p < 0.02$).
3. 9 healthy males received A II (5 ng/kg/min) or sham infusions (randomized) from 4.30 to 8 p.m., and a bolus injection of CRF was given at 5 p.m. The ACTH and cortisol releases following CRF were not different in the two conditions.
Conclusions: A II enhances ACTH release during the early morning surge, but not when exogenous CRF is given. A II may be a weak ACTH-releasing factor with little or no physiological importance, but with pathophysiological impact on ACTH secretion in states of greatly enhanced A II formation like the salt-losing form of 21-hydroxylase deficiency.

70
The effect of Danazol on high density lipoprotein cholesterol and apoproteins. C.D.Fletcher, E. Farish, R.J.S.Hawthorn & D.H.Gilmore. Stobhill Hospital,Glasgow, Scotland.

Danazol (17 a-pregn-4-en-20yno(2,3-d)isoxazol-17-ol),a synthetic steroid with antigonadotrophic properties, has been used in the treatment of a number of gynaecological disorders including premenstrual tension (1). However it has been shown that danazol lowers HDL cholesterol (2),which is negatively correlated with coronary heart disease (CHD) risk. This study was undertaken to further investigate the effects of danazol on HDL and its apoproteins.

Nine subjects were studied during three months treatment with danazol (100 mg b.d.). Fasting specimens were taken pretreatment,after 1 month and 3 months on treatment, and 1 month post-treatment. HDL,HDL2, and HDL3 were separated by ultracentrifugation and the cholesterol quantitated enzymatically. Apo AI and ApoII concentrations were measured by immunoturbidimetry.

Our results show that HDL,HDL2, and HDL3 cholesterol and Apo AI and Apo AII levels were significantly reduced after 1 month on danazol and stayed so for the rest of the treatment period. One month after finishing all parameters had returned to pretreatment levels. Our results also suggest that there are no compositional changes in HDL,the ratio of cholesterol to apoproteins remaining constant.

Treatment with danazol reduces HDL cholesterol levels,especially the anti-atherogenic HDL2 fraction. However it still remains to be proven that pharmacologically reducing HDL cholesterol actually increases the risk of developing CHD.

References

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