
ANTIGONADOTROPIC EFFECT OF HIGH DOSES CYPROTERONE ACETATE

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Objective. To study the therapeutic effect of antiandrogenic preparation Androcur (cyproterone acetate) in patients with severe hirsutism.

Methods. FSH, LH and testosterone levels were determined in blood of 36 patients. Androcur containing 10 and 50 mg cyproterone acetate (CA) was used for the treatment.

Results. A significant decrease of FSH, LH and testosterone blood levels was observed as soon as in 3 months of using 50-100 mg of CA, while CA in a dose of 10 mg resulted in a significant decrease of FSH, LH levels only after 6-month treatment. Antigonadotropic and antiandrogenic effects developed earlier and were more pronounced at the dose of CA 50-100 mg, and after 9 months of treatment LH levels decreased from 6.8 ± 1.6 to 0.3 ± 0.11 IU/l ($p < 0.001$). At the same time no reliable differences was found in the hirsutism dynamics in both groups of patients.

Conclusion. The rise of CA dose is followed by the increase of antigonadotropic and antiandrogenic effect of Androcur. High doses (50-100 mg) CA are advisable to be used in cases of severe hyperandrogenemy and patients with polycystic ovary syndrome.

NEUROTOXIC XENOBIOTICS INDUCE THE ALTERATIONS IN NEUROTRANSMITTER REGULATION OF GONADOLIBERIN CIRCADIAN RHYTHMS

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Objective. Experiments on chronic inhalation of various xenobiotics (toluene, dioxane, formaldehyde) dosed in both maximal permissible concentration and limited chronical range have been carried out on female rats to discover their effects on biogenic amines system in brain structures related to gonadoliberin (GnRH) synthesis and secretion.

Methods. Dopamine, serotonin and their metabolites (3,4-dihydroxyphenylacetic acid and 5-hydroxyindoleacetic acid respectively) content has been determined in preoptic area and medial eminence by HPLC with electrochemical detection.

Results and Conclusion. It has been shown that contents of GnRH and biogenic amines (dopamine and serotonin) that regulate its synthesis and secretion in medial eminence and especially in preoptic area of hypothalamus change in the opposite way in control rats. The low level of GnRH corresponds to a high content of biogenic amines in the morning, the opposite time course being revealed in the evening. Neurotoxic xenobiotics (toluene, dioxane) opposite to formaldehyde cause the disturbance of these normal circadian rhythms of GnRH secretion due to the decrease of dopamine and serotonin, as well as their metabolites, showing the inhibitory effect on the neurons in brain areas investigated.