Postoperative bromocriptine therapy for 8-15 weeks always re-established ovulatory cycles. One of the above mentioned patients became pregnant twice; the first time she had a miscarriage, the second time a normal twin delivery at term. Eight other patients having adenomas, were treated with bromocriptine therapy (7.5 mg/day) only; in all cases ovulatory cycles were re-established after a few weeks of therapy; in addition four patients became pregnant and delivered normal babies at term.

In 73 hyperprolactinaemic patients, without radiological signs of adenoma, bromocriptine therapy, normalized prolactin levels and relieved clinical symptoms. Fourteen of them, desiring babies, became pregnant after a few weeks of therapy and delivered 14 normal babies at term.

60. 20αOH/17αOH progesterone relationships with prolactin and androgens in normal, hyperprolactinemic and hirsute women, G. MAGRINI, F. MÉAN and J.P. FELBER, Division de Biochimie Clinique, Département de Médecine, C.H.U.V., 1011 Lausanne, Switzerland

It is generally admitted that prolactin (PRL) influences steroidogenesis in women, and a biphasic action of PRL on progesterone (P) secretion has been reported.

On the other hand, P metabolism to 20αOH-progesterone (20αOHP) has been suggested to regulate locally intracellular P concentration. As conflicting data on the possible effects of PRL on P metabolism and androgen secretion have appeared in the literature, in this study progestin and androgen levels were evaluated in various groups of women presenting either hyperprolactinemia or hyperandrogenic hirsutism, as well as in a control group. Plasma 20αOHP, 17αOHP, testosterone (T), androstenedione (A), DHEA-S, cortisol and PRL were measured by specific radioimmunoassays.

In the group of 10 hyperprolactinemic women, the mean 20αOHP/17αOHP ratio of plasma levels in the follicular phase decreased significantly, compared with the control group, but returned close to control values in the hyperprolactinemic group during bromocriptine treatment.

As a significant decrease in the 20αOHP/17αOHP ratio was also observed in the group of 19 hirsute patients presenting with severe hyperandrogenism as well as cycle disturbances, the findings suggest that both pathological conditions leading to hypersecretion of either PRL or androgens, might exert similar lowering effects on the 20α/17α balance, in favour of the formation of the androgenic precursor, 17αOH-progesterone. Moreover, the results show significant modifications in the ratios between individual plasma androgen or progestin levels, depending on the stage of the menstrual cycle (early, mid-late follicular, periovulatory or luteal).

61. Influence of SHBG on activity of 17β-hydroxysteroid oxidoreductase in human erythrocytes, M. EGLOFF, N. SAVOURE, J. TARDIVEL-LACOMBE, C. MASSART, M. NICOL and H. DEGRELLE, U.E.R. Biomédicale des Saints-Pères et Laboratoire Associé au CNRS n° 87, 45 rue des Saints-Pères, Paris, and U.E.R. Médicales de Rennes, Villejean, 35000 Rennes, France

In order to clarify the precise point of action of SHBG on the peripheral conversion of androstenedione (inactive androgen) to testosterone (active androgen), we studied a simple experimental model with a partially purified human SHBG. The human erythrocyte is, on the one hand, in direct contact with steroids and plasma binding proteins, and, on the other, it contains an active 17β-hydroxysteroid oxidoreductase. We have prepared a highly purified SHBG from human late pregnancy serum in four steps: ammonium sulphate precipitation, affinity chromatography on blue sepharose CL-6 B, gel filtration on ACA 44 and electrofocusing. The conversion rate of tritiated androstenedione to testosterone was evaluated in the incubation medium by measuring radioactivity after TLC. Contrary to the effect of other plasma proteins, the increase in SHBG concentration induces an increase in the conversion rate. Denaturated SHBG has no influence. These results suggest a new biological role of SHBG in the peripheral conversion of androgens.

62. Spironolactone as an antiandrogen in the therapy of female hirsutism, M. MESSINA, P. BIFFIGNANDI, C. MANIERI, E. GHIGO and G.M. MOLINATTI, Chair of Endocrinology, University of Turin, 14 Corso Polonia, 10126 Turin, Italy

Many reports have offered explanations of the antiandrogenic action of spironolactone. In particular it has been recently demonstrated that spironolactone interacts with 5α-dihydrotestosterone (DHT) receptors at a cytosolic level in some androgen target tissues (1).

In view of these findings, we studied the therapeutic effects of spironolactone in eight women suffering from idiopathic hirsutism. The drug was administered in a dosage of 400 mg daily for the first 10 days and of 200-300 mg daily after this. Clinical improvement was assessed after 50, 100 and 150 days of therapy.

A quite complete disappearance of hirsutism and seborrhoea in seven out of eight subjects after about 100 days of therapy was evident. All patients showed menstrual irregularities: polymenorrhoea in seven cases and amenorrhoea in one. Arterial pressure and electrolyte patterns were not altered by the administration of the drug. Moreover, the concentration of plasma testosterone was significantly decreased ($P < 0.001$) in all patients compared with pre-treatment levels, during the first decade of therapy.

Presented data suggest that spironolactone is very effective as an antiandrogen in the treatment of female hirsutism.