note a stable pattern following the shunting.

The case presented here differs from other reports as the hydrocephalus was huge and amount of fluid withdrawn was enormous. It is of interest to note that despite a severely affected brain, the heart pattern was normal prior to and during most of cephalocentesis procedure. Signs of fetal distress appeared only at a later stage and subside gradually after cessation of the cephalocentesis. It could be suggested that a moderate change in the intracranial pressure of hydrocephalic fetuses has no harmful effect on their heart activity.

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TOPICAL TREATMENT OF VULVAR DYSTROPHIES WITH PROGESTERONE

A. ONNIS - L. BECAGLI
Institute of Gynecology and Obstetrics - University of Padua (Italy)

Summary: The Authors have studied the topical use of progesterone gel in the treatment of vulvar dystrophies.

The results compared with those obtained previously with testosterone propionate pointed out the positive effects even of the progesterone, which has to be the first therapeutical approach for all the types of vulvar dystrophies, reserving to serious and resistants cases the treatment with testosterone propionate.

Present knowledge of the receptorial situation of the vulvar tissue ([1, 2, 3]) and also the studies and experiments of Jasionowski ([4, 5]) and our own ([6]) induced us to treat vulvar dystrophy with topic progesterone. These studies follow our experience with propionate testosterone and therefore permit us a comparative analysis of the results.

The efficacy of propionate testosterone is notable in the topical treatment of vulvar dystrophies (characterised by a defect of epithelial regeneration) for its stimulating action on the sebaceous glands and of the fibroblasts of the derma, because of a vasodilation and of a regularisation of the epidermical differentiation.

From the receptorial study, the picture of vulvar dystrophy seems to be correlated to a modification of the regulatory hormonal mechanisms. Therefore the therapeutic effects of progesterone and testos-

terone could derive from a common capacity to influence the type of response of the vulvar tissues to the steroids through mechanisms still under study.

Our experience, although initial, seems to show that the cytoplasmatic and nuclear progesterone receptors constitute the most sensitive parameter of the steroidal equilibrium of the vulva.

We also noticed that the topical administration of progesterone produce a sensible increase of the concentration of its own carriers at cellular level, both in the cytoplasm and in the nucleus.

On the contrary, the administration of testosterone did not seem to be followed by any increase in its own receptors.

MATERIAL AND METHODS

In this research we studied, 265 cases of vulvar dystrophy of which 227 were treated with testosterone propionate and 38 (in our latest experiments) were treated with progesterone in gel. The patient's ages were comprised between 17 and 78 years, and were submitted to accurate anamnesis, objective examination, vulvoscopy, vulvar cytology, Bleu de Toluidine test, photographic survey, histological evaluation of the illness, also in order to exclude displastic and heteroplastic forms which were excluded from the scope of our study and besides required other types of treatment.

On the basis of the duration and intensity of the subjective symptoms, of the severity and extent of the objective picture, we decided to subdivide the patients into three groups.

1) Severe dystrophy, characterised by intense subjective symptomotology for more than 5 years and/or lesions spreading beyond the vulva.

2) Moderate dystrophy characterised by subjective symptomology for 2 to 5 years and/or lesions limited to the vulva.

3) Light dystrophy characterised by subjective symptomotolgy for less than 2 years and by lesions onlv partially affecting the vulva.

Topical treatment was prescribed for all these patients which in 227 cases was on the basis of propionate testosterone in vaselin and in 38 cases on the basis of progesterone in hydroalcoholic gel at 1%.

The patients were treated initially with two applications daily (g 2 of progesterone-gel or g 1 of propionate testosterone each corresponding to mg 20 of steroid), and successively, on the basis of results obtained, to a single application daily.

Checks were carried out initially after thirty days from the beginning of treatment, and successively, on the basis of eventual improvements obtained, to periodic bi-monthly checks.

For the evaluation of the effectiveness of the treatment applied, we considered the following parameters:

1) The reduction or disappearance of the pruritis, burning sensation and dispareunia (the most frequent symptoms referred to).

2) The increase in elasticity, the improvement in cutaneous trophism with disappearance of fissure and abrasions and the reduction of local loss of colour.

3) Modifications in the histological picture.

RESULTS

Of the 227 patients treated with propionate testosterone, 48 had severe dystrophy, 89 moderate dystrophy, 90 light dystrophy.

The overall results obtained from topical treatment on the basis of propionate testosterone may be considered satisfactory. In fact, out of 48 patients suffering from serious dystrophy, 18 had regression of the subjective symptomology, 7 improvement in the macroscopic picture, and in only 1 patient improvement in the microscopic picture. Of the patients with moderated dystrophy, 73 had regression of the subjective symptomology, 38 improvement in the macroscopic picture, and 20 improvement in the microscopic picture.

Of the 48 patients treated more recently with progesterone (24 with lichen, 7 with hyperplastic dystrophy, 7 with mixed dystrophy).

6 had severe dystrophy, 10 moderated dystrophy, 22 light dystrophy.

The inclusive results obtained even with topical treatment on the basis of progesterone, albeit within the limits of cases studied up to date, appear interesting (tab. 1). At the first check on 19 of the 22 patients with light dystrophy we observed the almost complete reduction of the subjective symptomology (pruritis,

Table 1. — *Progesterone topic treatment.*

	Severe dystrophy 6 cases	Moderate dystrophy 10 cases	Light dystrophy 22 cases	38 cases	%
	Improvement	Improvement	Improvement		
Symptoms	—	5	19	24	63
Macroscopic	—	3	13	16	42
Histologic	—	—	8	8	21

burning, dyspareunia) in 13 macroscopic improvement (reduction of phlogosis, of the edema, improvement in the cutaneous trophism and disappearance of the fissuring) and in 8 microscopic improvement. In 5 of the 10 patients with average dystrophy, on average there was subjective improvement, in 3 improvement in the objective picture, while in no case was there any histological improvement.

The results in the 6 cases of severe dystrophic forms was practically nil.

CONCLUSIONS

On the basis of the results of our clinical experiment, in the first place the efficacy of testosterone propionate in the treatment of vulvar dystrophy appears to be confirmed, with a notable percentage of success even in the most serious form.

The results obtained with topic progesterone, albeit in a limited case study, confirm its efficacy in vulvar pathology above all in average or mild forms.

In particular this treatment has appeared effective recently in the not outstanding forms, and even more in vulvar pruritis sine materia in menopausal age and at younger ages too, accompanied by slight changes of cutaneous trophism.

In our opinion certain factors of clinico-practical importance for progesterone are to be underlined, such as:

– The solving in a short term of the subjective symptomology, of such dramatic importance to the patient.

– The absence of collateral effects, proper to testosterone, both local and systemic, such as clytoridal hypertrophy and hypertricosis.

– The easy availability of the preparation.

The only inconvenience constituted by the alcoholic vehicle is that it sometimes causes a passing/burning.

Even the topical treatment with progesterone as in that with testosterone must be continuous and carried out for a regular period, since both therapy and remedy are of essentially symptomatic, not causal type.

To conclude, we advise the choice of topic progesterone (eventually given to precede local treatment with corticosteroids) as a first therapeutic approach to all dystrophic vulvar forms of average and slight seriousness, reserving instead the testosterone propionate treatment to cases of severe dystrophy or to those which have not benefited from the progesterone treatment.

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