Bromocriptine Treatment in Patients with Late Onset Acne and Idiopathic Hyperprolactinemia

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Twenty female patients with late onset acne and idiopathic hyperprolactinemia—but without increased levels of androgens or decreased levels of SHBG—were treated with bromocriptine. All patients had a fall of basal prolactin levels to normal and a great improvement in or even disappearance of their acne. *Key words:* late onset acne; prolactin; bromocriptine. (Received June 25, 1987.)

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Patients with late onset or persistent acne vulgaris may have abnormalities in serum levels of androgens, SHBG and prolactin, either alone or in combination (1, 2, 3).

We report the clinical features of 20 female patients with acne and idiopathic hyperprolactinemia but without increased concentrations of androgens or decreased levels of SHBG. We describe the effects of bromocriptine treatment.

CASE REPORTS

Twenty women aged 17 to 43 years (mean age 25.45±6.67) entered the study. Mild to moderate acne, grade 1 or 2 according to Palatsi et al. (4), had been present from a minimum of 2 years, up to a maximum of 20 years (mean 6.25±3.99 years). None of the patients had received hormonal treatment before study for at least 6 months, nor had taken any drug which could have altered the physiological values of prolactin (5). From a clinical point of view, 2 patients out of 20 presented galactorrhea, 6 had effluvium, 5 mild hirsutism, but none had amenorrhea. All the patients had normal values of LH, FSH, estradiol, androstenedione, testosterone, SHBG, and DHEAS as measured by RIA.

Basal prolactin levels (measured by RIA) ranged between 28.5 and 90 ng/ml (mean 45.74±16.95 ng/ml). In the authors' laboratory, the normal values for prolactin range from 5 to 20 ng/ml. Stimulated prolactin levels 30 min after the intravenous injection of 200 μg of thyrotropin-releasing hormone ranged between 72 and 180 ng/ml (mean 127.35±34.91 ng/ml).

All blood samples were collected between 08.00 and 10.00 a.m. during the follicular phase of the menstrual cycle.

Standard X-ray examination and tomography of the pituitary fossa and pelvic ultrasound scanning were normal. All patients were treated with bromocriptine (usual dose between 2.5 and 7.5 mg/die). All patients had a fall of basal prolactin levels to normal values within 3–5 months of treatment; acne greatly improved or disappeared, galactorrhea disappeared, effluvium was not altered.

COMMENT

Our data confirm that idiopathic hyperprolactinemia may be associated with acne in the absence of altered androgen concentrations. It is interesting to note that bromocriptine not only produced a fall in prolactin levels but also produced an improvement of acne. Such improvement could be due to the reduced action of prolactin on adrenal androgens production and/or to a diminished sensitization of sebaceous cells (4) to androgens.

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Spironolactone and Cimetidine in Treatment of Acne

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Hatwal A, Bhatt RP, Agrawal JK, Singh G, Bajpai HS. Spironolactone and cimetidine in treatment of acne. Acta Derm Venereol (Stockh) 1988; 68: 84–87.

In an open therapeutic trial, 50 patients with acne vulgaris were randomly allocated to one of two groups. One group received spironolactone 100 mg daily and the other cimetidine 1.6 g daily for 12 weeks. Clinical severity of acne and sebum excretion decreased significantly at the end of the trial with both drugs, but significantly more with spironolactone. Mean serum levels of testosterone, androstenedione and dehydroepiandrosterone-sulfate decreased significantly with spironolactone but showed no change with cimetidine. Our data suggest that spironolactone may be useful as antiandrogen in the short term therapy of acne vulgaris. *Key words: Sebum; Antiandrogen; Testosterone; Androstenedione and dehydroepiandrosterone-sulfate.* (Received June 12, 1987.)

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As androgenic hormones increase sebaceous gland activity and predispose to acne vulgaris, antiandrogens have been used in the treatment of acne (1, 2). However, drugs like estrogens and cyproterone-acetate are limited by their side effects. The aldosterone antagonist spironolactone and the H2-receptor blocker cimetidine have antiandrogen effects (3, 4) and both have relatively very few side effects. There are only isolated studies of their use in acne (5, 6). This study was done to evaluate the efficacy of these drugs in short term treatment of acne.

MATERIAL AND METHODS

A total of 50 patients with moderate to severe acne vulgaris (30 females, 20 males) entered the trial after giving their informed consent (age range 14–25 years; peak age incidence 20–22 years). A history of partial or no response to conventional treatment for acne was present in all the patients.

The patients were randomly allocated to one of two therapeutic groups. 25 patients (15 females, 10 males) received oral spironolactone 100 mg/day while the other 25 (16 females, 9 males) received oral cimetidine 1.6 g/day in divided doses for a period of 12 weeks. These dosages were elected as 1.6 g and 100 mg are the usual safe average daily doses of cimetidine and spironolactone in their use as H2