ABSTRACTS FROM CURRENT LITERATURE

Therapeutic efficacy of phenytoin in recessive dystrophic epidermolysis : A comparison of short and long-term treatment, Cooper TW and Bauer EA : Arch Dermatol, 1984; 120:490-495.

Twenty two patients of recessive dystrophic epidermolysis bullosa (RDEB) were treated with therapeutic doses of oral phenytoin to achieve a blood level of 8-10 ug/ml, for periods ranging from 8 to 99 weeks. Fourteen (64%) patients had greater than a 40% mean percentage decrease in blistering of the skin. Nine (41%) were treated for longer than 75 weeks and 7 (78%) of these 9 patients had a mean decrease in blistering of at least 40% during phenytoin therapy.

This data, along with previous reports, suggests that phenyotin has therapeutic efficacy in RDEB.

Maya Jacob

Efficacy of ketoconazole in cutaneous leishmaniasis, Weinrauch L, Livshin R, Even-Paz Z et al : Arch Dermatol Res, 1983; 275: 353-354.

Eight patients with cutaneous leishmaniasis, confirmed by protozoological examination of smears and cultures from several lesions, were treated with ketoconazole 400 mg a day in a single oral dose for 28 days. Protozoological and clinical examination were repeated at 2 weekly intervals.

By 2 weeks of starting the therapy, 2 patients were protozoologically negative, and by 4 weeks 5 patients were completely cured, both clinically and protozoologically. There was no recurrence at a 1-month follow up. Of the remaining patients, 2 had not improved by 8 weeks and 1 patient did not return for follow up. The drug was generally well tolerated.

The authors conclude that oral ketoconazole might be used as an alternative to other oral drugs for the treatment of cutaneous leishmaniasis.

Maya Jacob

The mode of action of ethyl lactate as a treatment for acne, Prottey C, George D, Leech RW et al : Brit J Dermatol, 1984; 110:475-486.

Autoradiographic studies of sections taken from rat skin after application of C^{14} radio labelled ethyl lactate showed localization of radioactivity in the hair follicles and sebaceus glands.

In the next part of the study, normal individuals of both sexes aged 18-40 years were subjected to application of 3 substances; namely a 10% ethyl lactate lotion in 44% ethanol and other constituents, a base vehicle lacking ethyl lactate, and 44% ethanol in water. Only the ethyl lactate lotion was capable of reducing the skin surface pH from 5.5 to 4; and this was more sustained. While both ethyl lactate and the base reduced aerobic organisms, only ethyl lactate was able to significantly lower anaerobic (especially *P. acnes*) counts. Ethyl lactate lotion was also more effective in reducing the surface lipase/esterase activity and free fatty acid/triglyceride ratio.

Probably the reduced pH obtained on hydrolysis of ethyl lactate to ethanol and lactic acid not only inhibits the growth of bacteria but also interferes with lipase activity which generates free fatty acids from sebum. These fatty acids are believed to play an important role in the pathogenesis of the inflammatory and comedonic lesions of acne. Results of the above experiment appear to support the rationale for the efficacy of ethyl lactate in acne vulgaris.

Vijay Battu

Plasma androgens in women with acne vulgaris, Rucky AW, Mcbuire J, Rosenfield RL et al : J Invest Dermatol, 1983; 81:70-74.

This study was done on 46 patients having only acne, 10 patients having only hirsutism, and 19 patients having both acne and hirsutism. The mean age of the patients was 23.8 ± 6.5. The results were compared with 23 controls with a mean age of 25.6 ± 6.6 years. Androgens, total and free testosterone (T), free 17β-hydroxysteroids (17-β), dehydroepiandrosterone sulfate (DS), and the androgen precursors 17α-hydroxypregnenolone (17-Preg) and 17α-hydroxyprogesterone (17-Preg), as well as testosterone-estrogen-binding-globulin were measured in all patients. Mean levels of all hormones measured, except 17-Preg, were elevated in all the women with acne. Fifty two per cent of acne patients, 60% of hirsutism patients and 63% of patients having both had at least one abnormal hormone level, the most frequently elevated plasma androgens being free T (25%), free 17β (23%) and DS (19%). Total T was high only in 12%. Elevations of plasma androgens were present in some women who did not have hirsutism or irregular menses.

Identification of endocrine abnormalities in women with acne may potentially offer an opportunity for hormonal therapy.

Maya Jacob

Serum levels of sex hormones in vulvar lichen sclerosis and the effect of topical testosterone, Friedrich EG and Kalra PS : N Eng J Med, 1984; 310:488-491.

Thirty women with untreated lichen sclerosis were found to have significantly decreased serum levels of dehydrotestosterone and androstenedione, as compared with normal values for age. Sex-hormone-binding-globulin levels did not differ significantly from the normal values for the age.

After therapy with topical 2% testosterone propionate in petrolatum applied twice a day, dihydrotestosterone and testosterone levels rose and exceeded the normal values in all the 10 cases which were followed up. Two patients did not have a clinical response despite a rise in their serum androgen levels.

The authors suggest that abnormal enzymatic activity (5α-reductase) may be responsible for lichen sclerosis.

Maya Jacob

Treatment of recurrent genital herpes simplex infections with oral acyclovir, A controlled trial, Reichman RC, Badger GJ, Mertz GJ et al : JAMA, 1984; 251:2103-2107.

Two hundred fifty patients were entered into a multicentric trial to evaluate the efficacy and toxicity of orally administered acyclovir for the treatment of recurrent genital herpes simplex. The study consisted of group A, in which the patients entered the study within 48 hours of the onset of lesions, and group B, in which the patients self initiated therapy as soon as possible after the onset of a recurrent episode. In both groups, the patients received either acyclovir (200 mg) or placebo, 5 times daily orally for five days. In both the groups, the duration of virus-shedding and the time taken for crusting and healing of the lesions were shorter among acyclovir recipients than among placebo recipients. In group B, fewer acyclovir recipients formed new lesions during the medication period than did placebo recipients. Comparison of the groups A and B revealed that the duration of virus-shedding and the time required for crusting and healing of the lesions were significantly shorter among acyclovir recipients in group B than among those in group A. No significant differences in the duration of itching and pain or in the duration of remission were noted between acyclovir and placebo groups. No significant adverse or toxic reactions were seen in acyclovir recipients. It is concluded that oral acyclovir shortens the duration of virus-

shedding and the duration of lesions in patients with recurrent herpes genitalis. These effects are more pronounced when therapy is self-initiated by the patients early in the course of a recurrent episode.

Maya Jacob

Systemic suppression of contact hypersensitivity in mice by Psoralen Plus UVA Radiation (PUVA), Krippe ML, Morison WL and Parrish JA: J Invest Dermatol, 1983; 81:87-92.

Treatment of mice with 8-methoxypsoralen and long wave UVR (UVA, 320-400 nm) decreased their response to contact sensitizers applied subsequently to the un-irradiated skin. This decreased reactivity exhibited a delayed time course, it affected the afferent but not the efferent phase of the reaction, and it was associated with the development of splenic suppressor cells. These suppressor cells were antigen-specific T lymphocytes, and they prevented the induction, but not the elicitation of contact hypersensitivity in recipient mice. In all of these characteristics, the decreased reactivity induced by treatment with PUVA resembled that produced by UVB (320-380 nm) radiation. These studies suggest that PUVA treatment may initiate the same sequence of cellular events as does exposure to UVB radiation leading to preferential activation of the suppressor cell pathway.

Maya Jacob

Psoriasis : A defect in the regulation of epidermal proteases, as shown by serial biopsies after cantharidin application, Dubertret L, Bertaux B, Fosse M et al : Brit J Dermatol, 1984; 110: 405-410.

Sequential biopsies were performed on the unaffected skin of 8 psoriatics and 7 controls after inducing damage with cantharidin. At 2 days, an increased proteolytic activity was observed in the upper stratum spinosum in both groups; at 7 days this had disappeared in 4 out of the 5 normals biopsied, but persisted in all the 5 psoriatics tested. In 2 of the psoriasis patients, these changes increased further, and eventually produced a lesion of psoriasis, while in the other 3 there was a progressive decrease in acanthosis and proteolytic activity. These changes were inhibited by protease inhibitors. Thus it seems that the epidermal proteolytic activity, a transient phenomenon during normal healing, persists for a longer period in psoriatics. Proteases are capable of influencing epidermopoiesis and activating chemotactic substances. The protease-antiprotease equilibrium could be part of the chalone regulating system; and an upset in this balance, perhaps brought about by non-specific skin injury, might be the biochemical trigger for a psoriatic lesion.

Vijay Battu

Suppression of Behcet's disease with dapsone, Sharquie KE : Brit J Dermatol, 1984; 110:493-494.

Seven male patients with Behcet's disease were treated with dapsone 100 mg daily for 4-7 months. The intradermal needle prick test, to which all of them had shown the pathergic reaction before treatment was either negative or much attenuated after starting treatment. It became strongly positive when dapsone was withdrawn. There was an improvement in all the manifestations. In patients who continued to have oro-genital ulcers, the severity of lesions decreased considerably. Stopping DDS resulted in a relapse in 2 patients. There were no side effects of dapsone.

The probable mode of action of dapsone is inhibition of lysosomal activity and interference with the myeloperoxidase H_2O_2 halide mediated cytotoxic system in polymorphonuclear leucocytes. This might explain its usefulness in dermatitis herpetiformis, subcorneal pustular dermatosis, erythema elevatum diutinum and Behcet's disease, where it suppresses PMNL chemotaxis.

Vijay Battu

Comparison of topical clindamycin phosphate, benzoyl peroxide and a combination of the two, for the treatment of acne vulgaris, Tucker SB, Tausend R, Cochran R et al : Brit J Dermatol 1984; 110:487-492.

Fifty-six patients with moderate to severe acne were treated for 10 weeks with either topical clindamycin phosphate (1% solution) twice daily, benzoyl peroxide (5% gel) twice daily or benzoyl peroxide in the morning and clindamycin phosphate at night. All the three regimes lowered the concentration of comedones, papules, pustules and cysts by 10 weeks. But none of the treatments was significantly better than the others, though the severity score of the combination was consistently lower throughout. Benzoyl peroxide was found to have a significantly higher irritancy index. The irritancy of clindamycin and combination treatment were similar.

Benzoyl peroxide causes less irritation when used in combination. It also possesses keratolytic activity and is said to delay the development of bacterial resistance. Clindamycin has antichemotactic properties and the combination of these two agents may be synergistic.

Vijay Battu

A study of hypoallergenic diets and oral sodium cromoglycate in the management of atopic eczema, Graham P, Hall-Smith SP, Harris JM et al: Brit J Dermatol, 1984; 110: 457-468.

Twenty-two children aged 3-12 years having atopic dermatitis were studied with diet elimination and provocation tests. The chief foods found responsible included nuts and fruits followed by the artificially coloured and flavoured ones. Reinstitution of normal diets for 2 weeks led to relapse in 20 of the 22 patients. From the results of these challenges, tailored hypoallergenic diets were made for each child.

A double blind cross-over study with oral sodium cromoglycate 100 mg 4 times a day for 3 weeks, raised to 200 mg 4 times a day for another 3 weeks compared to a placebo, showed no relief when the patients were given a normal diet.

It is concluded that food allergy can exacerbate childhood atopic dermatitis, and individual adjustment of diet is useful. Sodium cromoglycate gives no additional benefit. There is hardly any agreement between specific IgE levels (RAST), skin prick tests and food challenge; therefore the RAST test and skin prick tests are not useful. Clinical challenge remains the only reliable test.

Vijay Battu