

ABSTRACTS FROM CURRENT LITERATURE

The effect of serum calcium levels on the rate of epidermal renewal in the rat, Dykes PJ and Markes R : Brit J Dermatol, 1984; 111 : 191-196.

In view of the *in vitro* human and animal studies showing that low calcium levels produce an increased epidermal growth rate and high levels reduce it, a study was undertaken to establish a possible relationship *in vivo* between hyper and hypocalcaemia and two parameters of epidermal activity namely, labelling index and thickness. Hypercalcaemia was produced by intraperitoneal injections of calcium chloride, and hypocalcaemia by subcutaneous or intraperitoneal calcitonin. Labelling index was determined using autoradiographic methods following tritiated thymidine labelling of the epidermal fragments obtained by biopsy. An image analysis system measured the mean thickness in biopsies processed by routine histological methods. Hypercalcaemia was found to significantly lower the labelling index while thickness was not significantly affected. Hypocalcaemia did not affect either of them. It was also found that while serum calcium changed very little, labeling index showed notable diurnal changes in the control animals. It seems serum calcium levels normally have no major role as regulators of epidermal turnover. Differences in the effect of reduced calcium levels in previous *in vitro* experiments and the present *in vivo* studies might be due to hypocalcaemia operating *in vivo* only in certain circumstances.

Vijay Battu

Aluminium chloride hexahydrate treatment of localized epidermolysis bullosa, Jennings JL : Arch Dermatol, 1984; 120 : 1382.

The successful use of aluminium chloride hexahydrate in a 21-year-old girl who suffered from daily blistering of the hands and feet (epidermolysis bullosa simplex, Cockayne type) since the age of 6 months, is described. After confirming the diagnosis by biopsy, the existing erosions were treated with bacitracin ointment and a sterile dressing. In addition, aluminium chloride hexahydrate 20% in ethyl alcohol was applied twice daily to the normal skin of hands and feet, and later, on the healing areas too. Blistering stopped within 2 weeks, it recurred within 2 weeks of stopping this therapy, and ceased promptly on resumption of the same treatment. The patient had remained asymptomatic for 18 months with just once or twice weekly applications. Considering the irritant and sensitizing potential of 10% glutaraldehyde, and the doubtful efficacy of vitamin E, the author feels that this form of therapy merits further exploration. The success of this therapy could be related to its anhidrotic action, especially in this condition where hyperhidrosis is a well known associated factor.

Vijay Battu

Does UVA potentiate 'short-contact' dithranol therapy, Roshad H, Barth JH, Barley CR et al : Brit J Dermatol, 1984; 111 : 155-158.

Following the discovery that maximum penetration of dithranol into the epidermis occurs within the first hour of application, high concentration-short-contact therapy had been attempted with success in psoriasis; its combination with UVA also produced good results. In this study, the authors attempted

to verify the effect of short-contact dithranol and also compared this with the addition of UVA. Ten patients with severe, symmetrical plaque type of psoriasis were treated with dithranol (0.25%, increasing to 3% by the 10th day) and 2% salicylic acid in yellow soft paraffin left applied for one hour. Within one hour after removal of the ointment, UVA irradiation was given at a dose of 10 Joules/cm², one side of the body was protected with a UVA impenetrable material. Eight out of 10 patients cleared in a median time of 14.5 days, comparing well with earlier studies. There was however, no difference between the UVA exposed and UVA protected sites. The authors stress that both the parameters of dithranol concentration and contact duration could be studied further and that the effect of additional UVA in different concentrations ought also to be looked into.

Vijay Battu

Gram-negative folliculitis, Blankenship ML : Arch Dermatol, 1984; 120 : 1301-1303.

Management of 20 patients having acne and taking long term oral antibiotic therapy who developed gram-negative folliculitis, confirmed by culture, is described. There were two types of patients : (1) Eighteen patients in whom superficial pustular lesions predominated and from which *Enterobacteriaceae*, *Klebsiella*, *Escherichia* or *Serratia*, collectively called lactose fermenting Gram-negative rods (LFGNR) were usually cultured, and (2) two patients in whom the lesions were characterized by deeper nodulocystic lesions which were usually caused by *Proteus*. This condition is generally considered to be resistant to therapy. The author was able to eradicate the infection in 19 out of the 20 patients using ampicillin, cotrimoxazole, tetracycline and doxycycline alone or in varying combinations, the majority of the patients receiving the first 2 drugs. The duration of therapy was 2 to 42 months, and most patients needed more than 6 to 9 months of therapy.

Vijay Battu

Oral spironolactone improves acne vulgaris and reduces sebum excretion, Goodfellow A, Alagband-Zadeh J, Carter G et al : Brit J Dermatol, 1984; 111 : 209-214.

The anti-androgen spironolactone was tried in a double-blind manner on 26 patients (13 males, 13 females) having severe acne vulgaris, studying 3 parameters namely, clinical response, sebum excretion and hormonal (androgen) status. The patients received randomly one of the 5 schedules; placebo, spironolactone 50, 100, 150 and 300 mg per day for 12 weeks. Clinical evaluation was graded as improved, unchanged or worse. Sebum excretion rate was estimated by the Cunliffe-Schuster modification of the Strauss-Pochi method. The androgen status was assessed by measuring the plasma testosterone (T) and sex-hormone-binding-globulin (SHBG). These values were used to determine the free androgen index (FAI). Clinical improvement was seen in 1 of the 15 patients on 100 mg or more of spironolactone, the best results being in those on 150 or 200 mg. Sebum excretion rate fell more in females than in males but it was unrelated to the androgen status. Surprisingly, androgen status parameters rose in females during the therapy. The side effects were limited to insignificant menstrual disturbances and a transient diuresis. According to the authors, this study is too small to make definite conclusions, but does show that spironolactone holds promise for severe cases. Long-term treatment in males however, could lead to gynaecomastia and impotence.

Vijay Battu

The treatment of resistant warts with intralesional bleomycin : a controlled clinical trial, Bunnay MH, Nolan MW, Buxton PK et al : Brit J Dermatol, 1984; 110 : 197-207.

A double blind trial was carried out to evaluate the effect of intralesional bleomycin for the treatment of 59 pairs of warts on the hands of 24 patients; in all cases the warts had resisted treatment for more than 3 months.

Bleomycin sulphate 0.1% solution in normal saline was used and normal saline was the control. Each wart received 1 to 3 injections at 3 week intervals; and the maximum dose that any patient received was 4 mg. At 6 weeks, 58% of the bleomycin treated warts were completely cured, and only traces remained in a further 22%. Of the 16 patients who continued the trial with bleomycin treatment only, 12 (75%) were completely cured.

The high cure rate, the conspicuous absence of any side effects apart from a mild local pain, the low dose of the drug required, and the effectiveness even in many patients with a personal or family history of endocrine disorders or immunodeficiency render this treatment worth further trials.

Vijay Battu

Auto-implantation technique in the management of genital and anal warts—A preliminary report, Usman N, Nagalakshmi P and Shanmugasundaram N : Ind J Sex Trans Dis, 1984; 5 : 8-10.

Fifteen patients having condylomata acuminata were treated with implanting subcutaneously a small piece of their genital wart on their forearm. In 11 patients the condylomata acuminata disappeared completely in 1-6 weeks, in 2 patients the lesions regressed, while in the remaining 2 patients the lesions did not show any change. Response of the lesions on the genitalia depended on the intensity of oedema and induration at the site of inoculation i.e. greater the oedema and induration, quicker was the response. Anal lesions were found to disappear faster than the genital lesions. This mode of treatment can be used in cases resistant to conventional therapy.

Ramji Gupta

Donovanosis successfully treated with trimethoprim alone, Lal S, Sharma RC and Arora SK: Ind J Sex Trans Dis, 1984; 5 : 18-19.

A 30-year-old female having donovanosis on her genitalia was treated with trimethoprim

200 mg twice daily. The ulcers disappeared completely during the next 15 days. There was no recurrence of the lesions during the next 2 months.

Ramji Gupta

Study of traditional and occult Herxheimer reaction in syphilis, Baruah MC, Lal S, Garg BR et al : Ind J Sex Trans Dis, 1984; 5 : 11-14.

Fifty patients having syphilis were investigated for the effect of penicillin treatment on their body temperature, VDRL titre and ESR. None of these were having any concomitant infections or anaemia. All patients showed positive VDRL and normal body temperature prior to treatment, while ESR was found raised in 92% of the patients. After treatment, 13 (26%) patients showed a rise in their VDRL titre. Eighteen (36%) patients showed elevation of their ESR, while 29 (58%) showed a fall in the ESR. Body temperature was found increased in 40 (80%) of the patients indicating generalised Jarisch Herxheimer reaction. Nine patients showed only focal Jarisch Herxheimer reaction. Rise in ESR (Occult Jarisch Herxheimer reaction) was found in only 4 cases in whom generalised Jarisch Herxheimer reaction did not occur.

Ramji Gupta

Treatment of cutaneous T-cell lymphomas with TP-5, Przybilla B, Burg G, Schmoeckel C et al : Acta Dermato-Venerol (Stockh), 1983; 63 : 524-529,

The authors have reported the effect of TP-5 in cutaneous T-cell lymphomas. TP-5 is a synthetic pentapeptide, which has similar biological activity corresponding to the amino acid residues 32-36 of the thymic hormone, thymopoietin. Eight patients with T-cell lymphomas (6 patients with mycosis fungoides, 1 patient with Sezary syndrome and 1 patient with unclassified low-grade malignant lymphoma) were treated.

TP-5 was administered 3 times weekly in a dose of 50 mg subcutaneously in 6 patients, 60 mg intravenously in 1 patient and 100 mg subcutaneously in 1 patient. Clinical evaluation was made every week by the morphological appearance of the involved skin. At the end of the trial (6-13 weeks) evaluation revealed improvement in 4 patients (2 patients with mycosis fungoides, 1 patient with Sezary syndrome and 1 patient with low-grade malignant lymphoma). Three patients with mycosis fungoides deteriorated while the fourth patient with mycosis fungoides showed no change. Further studies are considered necessary to evaluate the effect of TP-5 in T-cell lymphomas.

K. Seetharam

Concomitant immunohistochemical characteristics of pemphigoid and dermatitis herpetiformis in a patient with atypical bullous dermatosis, De Jong MCJM, Van Der Meer JB, De Nijs JAM et al : Acta Dermato-Venerol (Stockh), 1983; 63 : 476-482.

A man aged 79 years had been developing itchy grouped vesicular eruptions over his neck, shoulder, arms and axillae for the last 13 months.

The bullae were flaccid and had mild erythema. The oral mucosa was normal and Nikolsky's sign was negative. The patient responded to prednisolone but the response to dapsone was doubtful. Skin biopsy was done 3 times at one month intervals. First biopsy showed a subepidermal bulla with an eosinophilic infiltrate around the peribullous area which was consistent with pemphigoid. The second biopsy revealed neutrophilic infiltrate along with the subepidermal bulla compatible with dermatitis herpetiformis. The third biopsy showed scanty mononuclear cells along the dermo-epidermal junction and a subepidermal split. Jejunal biopsy showed total villous atrophy. Five punch biopsy specimens were examined for immunofluorescence. Peribullous and unaffected skin showed homogenous linear deposition of IgG and C3c at the basement membrane, while unaffected skin showed granular IgA deposits in the dermal papillae. Circulating IgG antibodies were found in a titre of 1 : 80 when using guinea pig oesophagus and 1 : 320 when human oral mucosa had been used as the antigenic substrate.

K. Seetharam