

## ABSTRACTS FROM CURRENT LITERATURE

**Prognostic significance of subepidermal immune deposits in uninvolved skin of patients with systemic lupus erythematosus : A 10-year longitudinal study, Davis BM and Gilliam JN: J Invest Dermatol, 1984; 83 : 242-247.**

Skin biopsies from uninvolved skin of 51 patients with systemic lupus erythematosus (SLE) were studied for the presence of immune deposits over a period of 10 years. The patients were divided into LBT positive and LBT negative groups on the basis of findings of the lupus band test (LBT) while the patient was not on any treatment. The patients in the LBT-positive group remained LBT positive, unless they were treated with high doses of prednisolone (more than 40 mg) or with cytotoxic drugs. The LBT negative patients remained LBT negative on repeated testing. The LBT-positive patients had a higher (55%) incidence of lupus nephropathy as compared with patients (23%) who were LBT negative. Moreover LBT-positive patients had a shorter (54%) 10-year survival from the time of diagnosis as compared to the LBT-negative patients (95%).

Neena Vaswani

**Pathogenesis in trichorrhexis invaginata, Ito M, Ito K and Hashimoto K : J Invest Dermatol, 1984; 83 : 1-7.**

Three patients with typical features of Netherton's syndrome were studied using plucked hair specimens and biopsy specimens from the scalp and the eye-brows. The scanning electron-microscopic examination showed trichorrhexis nodosa, pili torti, tortion nodule and trichorrhexis invaginata. The light microscopic sections of nodules of plucked hairs revealed invagination of the hair cuticle into the cortex. Transmission electron-microscopy

revealed cleavages and electron-dense depositions in the cortex of plucked hair nodules; such changes were not seen in the newly formed nodules in the follicles in the biopsy specimens. In the keratogenous zone, a zig zag pattern of cortical fibres and invaginations of hair cuticle cells into the cortex were observed. Histochemical staining for SS linkages and SH groups revealed that the keratinised cortical cells of the patients possessed an abundance of SH groups. This was attributed to an incomplete conversion of SH to SS in the cortical fibres which resulted in softness of the cortex in the keratogenous zone.

Neena Vaswani

**A gigantic metastasizing keratoacanthoma—report of a case and discussion on classification, Piscioli F, Zumiani G, Boi S et al : Amer J Dermatopathol, 1984; 6: 123-129.**

A case of gigantic metastasizing keratoacanthoma in a woman who had impaired cellular immunity and autoimmune hemolytic anemia is described. The case suggests that disorders of humoral and cellular immunity may be responsible for development of recurrent and metastasizing keratoacanthomas.

A S Kumar

**Clear cell syringoma—association with diabetes mellitus, Furuc M, Hori Y and Nakabayashi Y : Amer J Dermatopathol, 1984; 6 : 131-138.**

Two cases of clear-cell syringomas—a variant of ordinary syringoma and shown to have several enzymal inactivities demonstrated by histochemical means are reported. A search of the literature showed only 7 earlier cases, of which 6 patients were Japanese. Eight out of the total of nine cases were associated with diabetes mellitus which is a significant association.

A S Kumar

**Essential fatty acid nutritional status in phrynoderma, Ghafoorunisa : Ind J Med Res, 1984; 80 : 663-669.**

Ratio of trienoic acid to tetraenoic acid was measured in 17 children having phrynoderma to assess their essential fatty acid (EFA) nutritional status by gas chromatography (GC) as well as alkaline isomerisation (AI) methods. Ratio was found normal by GC method while it was high by AI method. On comparing the data obtained by these two techniques, it was found that the high ratio obtained by AI method was not due to EFA deficiency but was due to lower sensitivity and specificity of the method.

The ratio of eicosatrienoic acid to arachidonic acid which is considered more accurate for measuring EFA nutritional status was measured in 10 other children having phrynoderma before and after treatment with safflower oil and vitamin B complex. The levels and ratio of these two acids remained essentially the same even after complete disappearance of the skin lesions indicating that phrynoderma may not be due to deficiency of EFA.

Ramji Gupta

**The co-existence of genital Mycoplasma and Neisseria gonorrhoeae isolated from the male urethra, Alfa MJ and Robertson JA : Sex Trans Dis, 1984; 11 : 131-136.**

*Ureaplasma urealyticum* and *Mycoplasma hominis*, separately or together were detected along with *Neisseria gonorrhoeae* in 34 of the 102 cultures obtained from the urethral swabs from men with urethritis. For approximately half of the *N. gonorrhoeae* strains, the mycoplasma persisted for at least five passages on agar medium. *U. urealyticum* was isolated in 31 instances. There was no association between any particular serotypes of *U. urealyticum* or auxotypes of *N. gonorrhoeae*. The auxotypes of the *N. gonorrhoeae* isolates were not altered by the presence of *U. urealyticum*. To screen

cultures of *N. gonorrhoeae* for the presence of genital mycoplasmas, the authors recommend direct microscopy of the growth on agar for *M. hominis* after the colony epifluorescence test, and for *U. urealyticum* after the urease spot test.

A S Kumar

**Condylomata lata of the toe-webs : A case report of an unusual manifestation of syphilis, Hira SK, Sex Trans Dis, 1984; 11 : 167-168.**

A young man was observed to have condylomata lata in all the toe-webs of both the feet. *Treponema pallidum* was demonstrated in these lesions by DGI. Two weeks after an intramuscular injection of 2.4 mega units of benzathine penicillin, all the lesions on the toe-webs resolved. This case confirms the ability of syphilis to simulate tinea pedis or intertrigo.

A S Kumar

**Common B-lactamase specifying plasmid in Haemophilus ducreyi and Neisseria gonorrhoeae, Anderson B, Albritton WL, Biddle J et al : Antimicrob Agents Chemother, 1984; 25 : 296-297.**

Eighty nine strains of *Haemophilus ducreyi* from a chancroid epidemic in Orange County, California were examined for plasmid content. Seventy eight (88%) of these isolates were found to contain a plasmid 3.2 megadaltons, which conferred B-lactamase production. Purified plasmid DNA from *H. ducreyi* isolate and *N. gonorrhoeae* were compared by digestion with several restriction endonucleases. The cleavage patterns and fragments obtained from both plasmids were identical, confirming that the same plasmid was found in some strains of B-lactamase producing *Neisseria gonorrhoeae*.

A S Kumar

**Incubation time of relapses after treatment of paucibacillary leprosy, Paltyn SR : Leprosy Rev, 1984; 55 : 115-120.**

Data are presented on the incubation time of 21 relapses after stopping dapsone monotherapy in paucibacillary leprosy in central Africa. The results are comparable with those of other studies. Half of the relapses occurred during the first 2-3 years. This figure is most important to analyse the results of drug trails in paucibacillary leprosy. This figure should also be relevant for regimens including more bactericidal drugs than dapsone, since the kind of antibacterial treatment should influence the minimal necessary duration of treatment but not the incubation time of relapses. Since the same mechanisms prevail in the relapses of multibacillary leprosy, their incubation periods should also be identical.

A S Kumar

**Adenosine triphosphate content of *Mycobacterium leprae* from leprosy patients, Dhople AM, Intern J Leprosy, 1984; 52 : 183-188.**

*Mycobacterium leprae* obtained from randomly selected lepromatous leprosy patients were used to evaluate the ATP assay technique for detecting viability of these cells. The findings were further confirmed by the standard mouse foot-pad technique. While the latter technique takes about 8-12 months to obtain any valid information on the status of *M. leprae*, the ATP data can be obtained within a few hours and at a much lower cost. It is hoped that the ATP technique would also be able to identify viable bacilli from patients taking dapsone and thereby identify dapsone resistance so that alternative treatment could be given. This method is advantageous over the  $H^3$ -thymidine incorporation method in which the uptake of  $H$ -thymidine in *M. leprae* inoculated in mouse peritoneal macrophages in a 14-day period is noted as an indicator of bacillary viability as  $H^3$ -thymidine is preferentially incorporated into the myco-

bacterial DNA and thus there is less risk of contaminating the samples.

A S Kumar

**Successful plasma exchange in type I leprosy reversal reaction, Lucht F, Riffe G, Portier H et al : Brit Med J, 1984; 289 : 1647-1648.**

A 24-year Senegalese man admitted to a hospital in France with borderline lepromatous leprosy was treated with rifampicin, dapsone and clofazimine. After 4 months, he developed a reversal reaction and the diagnosis was modified to borderline tuberculoid leprosy. The dose of clofazimine was raised to 400 mg daily and prednisolone 1 mg/kg was introduced without any response in 20 days. His condition improved dramatically after five plasma exchanges on five successive days.

A S Kumar

**Greater auricular nerve conduction in leprosy, Gauriedevi M : Ind J Leprosy, 1984; 56 : 182-190.**

In order to have an objective test of nerve function for differentiating between normal and abnormal nerves affected by leprosy, greater auricular sensory nerve conduction was performed on the nerves of both sides in 18 controls and 12 leprosy patients. All the 8 thickened nerves and 8 of the remaining 16 clinically normal nerves in leprosy patients were found to have some or the other electrophysiological abnormality. All the control subjects showed normal electrophysiological changes.

Ramji Gupta

**Study of multiple case families, Mathur NK, Sharma M, Bumb RA et al : Ind J Leprosy, 1984; 56 : 200-206.**

Family members of 728 leprosy patients were examined to find out the incidence of leprosy. Forty two (5.76%) families were found to be multiple case families. Thirteen (30%)

families were having 2 secondary cases, while the remaining were having one secondary case. Thirty two (57%) of the secondary cases were below 15 years at the time of onset of the disease. Out of 56 secondary cases, 23 (41%) were TT, 12 (21%) BT, 6 (10%) BL, 8 (14%) LL, 2 polyneuritic and 5 indeterminate. Majority of secondary cases developed leprosy within 5 years of contact irrespective of the type of leprosy in the index case. Thirty two (57%) secondary cases were due to lepromatous leprosy in the index cases. Parents were responsible for 29 (52%) secondary cases, while siblings were found responsible for 14 (25%) secondary cases. Conjugal leprosy was found in 10.7% cases.

**Ramji Gupta**

**Neonatal lupus erythematosus in four successive siblings born to a mother with discoid lupus erythematosus, Gawkrödger DJ and Beveridge GW : Brit J Dermatol, 1984; 111:683-687.**

A young woman who had a butterfly pattern rash on her face and having positive ANF, delivered 4 male babies in 3 pregnancies between 1977 and 1981. Remarkably, all the 4 male babies developed cutaneous features suggestive of lupus erythematosus within a few to several weeks after birth. The first two (twins) had a photosensitive facial rash and one of them also had a heart block; the third had annular telangiectatic lesions on the head, and the fourth developed erythematosus annular lesions on the trunk with central atrophy. All were ANF negative. The authors suggest screening of all pregnant women with a history suggestive of connective tissue disorders, and fetal monitoring in such cases.

**Vijay Battu**

**Erythema multiforme : Epidemiology, clinical characteristics and natural history in 59 patients, Ting HC and Adam BA : Aust J Dermatol, 1984; 25 : 83-88.**

Fifty nine patients with erythema multiforme were studied; 34 were classified as EM major and the other 25 as EM minor. The authors could find distinct differences between these two subsets of erythema multiforme, in epidemiological, and clinical features and the course of events. EM major was found to be more common in males, almost always associated with toxic features like fever, often preceded by prodromal symptoms and frequently associated with intake of drugs. Involvement of other organ systems also was common. Mortality rate was high (14.7%). EM minor, on the other hand, was more in females, unassociated with prodromal symptoms and without any systemic complications. It was seldom associated with aetiologically relevant drugs and had no long term sequelae or any mortality.

**K. Pavithran**

**Extensive pityriasis alba : A histological histochemical and ultrastructural study, Zaynoun ST, Aftimos BG, Tenekjian KK et al : Brit J Dermatol, 1983; 108:83-90.**

The cause of hypopigmentation in pityriasis alba is not fully understood. It has been attributed to ultraviolet screening effect of the hyperkeratotic and parakeratotic epidermis and to a reduced capacity of hypermetabolic epidermal cells to take in melanin granules. Histochemical and electronmicroscopic study by the authors, showed a reduction in the density of functional melanocytes in the affected areas. The melanosomes were fewer in number and their size was smaller. But their distribution pattern in the keratinocytes was normal. The hypopigmentation of the patches of pityriasis alba thus may be due primarily to a reduced number of active melanocytes and a decrease in the number and size of melanosomes.

**K. Pavithran**

**Increased natural killer cell activity in patients with epidermodysplasia verruciformis, Marek K,**

**Maria P, Stefania J et al : Arch Dermatol, 1985; 121: 84-86.**

Six patients with epidermodysplasia verruciformis (EV) were studied for natural killer cell (NKC) cytotoxic response of their peripheral blood mononuclear cells against K-562 target cells in an 18-hour chromium 51-release assay. Four patients displayed higher cytotoxic responses than controls, whereas two others did not differ from controls. Patients with EV who had increased NKC activity were found to be infected with potentially oncogenic human papilloma viruses (types 5, 8, 9, 14, 17, 19, 22, 24 and others) and they had multiple skin carcinomas and/or Bowen's precancerous dermatosis. Two EV patients with normal cytotoxic response were free of skin malignancies.

**Omar Jabr**

**Hydroxychloroquine versus phlebotomy in the treatment of porphyria cutanea tarda, Cainelli T, Di Padova C, Marchesi L et al: Brit J Dermatol, 1983; 108 : 593-600.**

One group of patients with PCT was treated with repeated phlebotomies i. e. twice monthly phlebotomies of 400 ml of whole blood each, for 1 year. The other group was given hydroxychloroquine, 200 mg twice weekly for 1 year. At the end of one year, urinary porphyrin excretion had significantly improved in 22 out of 30 hydroxychloroquine treated subjects but in only 8 out of 31 patients who underwent phlebotomies. It is concluded that hydroxychloroquine is more effective than phlebotomy in decreasing porphyrin production.

**K. Pavithran**

**Membrane attack complex of complement in dermatitis herpetiformis, Mark VD, Ronald JF, Rondall C et al: Arch Dermatol, 1985; 121: 70-72.**

The assembly of membrane attack complex (MAC) of complement to the attachment of C9; and the presence of MAC on tissue suggests

a possible pathogenic role for complement in disease since MAC is able to damage the membrane. Normal skin of five patients with dermatitis herpetiformis was examined for the presence of MAC using a monoclonal antibody (poly C9-MA) that recognizes a neoantigen of C9 that is not present on monomeric C9 but is common to both isolated MAC and to polymerized C9. Granular deposits of polymerized C9 were found at the sites of IgA deposition in the dermal papillae of normal skin from all the 5 patients. The pathologic importance of this finding is uncertain.

**Omar Jabr**

**Controversies in paediatric dermatology, Rasmussen JE : Aust J Dermatol, 1984; 25 : 37-44.**

The author describes various modalities of treatment of pediculosis of the eye lashes. It presents as pruritic, crusted dermatitis of the lid margins. The pubic louse is the common cause in this locale. The commonly used antipediculus agents lindane, pyrethrin, crothamiton, malathion etc used for treatment of pediculosis capitis cannot be recommended for phthiriasis palpebrarum because these agents are highly irritant to the mucosa of the eyes. Petrolatum is the treatment of choice in this locale. This can be applied 3 times daily for 2 days. The lice are either suffocated or slip off the hairs and fall to their death. Physostigmine 0.25% and yellow oxide of mercury 10% are the other agents used. Recently, 10-20% fluorescein was found to have an immediate toxic effect on these lice and is now recommended as one of the treatments. The only disadvantage is the slight greenish orange discoloration of the lids.

The author also refers to cotrimoxazole (80 mg trimethoprim and 400 mg sulphamethoxazole) given twice daily orally for 3 days. It was found to kill all the adult lice in 20 female patients. But it had no effect on nits and so a second course of therapy was necessary 10 days

after the first in order to treat the recently hatched organisms.

**K. Pavithran**

**Irritant and allergic responses as influenced by triamcinolone in patch test materials, Robert LR : Arch Dermatol, 1985; 121:68-69.**

While prior application of triamcinolone acetonide to skin does not strongly influence patch test reactions, the presence of triamcinolone in the materials used for patch testing has a profound effect. Both irritant and allergic reactions to thimerosal were consistently negated when triamcinolone acetonide was present in concentrations of 0.1% and 0.025% in the preparation.

**Omar Jabr**

**Hypertrichosis in PUVA—treated patients, Rampen FHI : Brit J Dermatol, 1983;109: 657-660.**

Fifteen (65%) out of 23 female patients receiving PUVA therapy for psoriasis (18 cases), psoriasis and vitiligo (1 case), alopecia areata (2 cases), urticaria pigmentosa (1 case) and granuloma annulare (1 case) showed moderate to severe hypertrichosis. In comparison, only two (14%) out of 14 vitiligo patients on UVA therapy without systemic psoralens developed hypertrichosis. Age of the patient, hair-colour and skin-type were not related to the development of hypertrichosis. The absence of hypertrichosis in the PUVA group was related to low cumulative dosage of UVA (180 J/cm<sup>2</sup>) or to irregular treatment. It is well known that PUVA therapy activates the basal keratinocytes and this effect probably also occurs in the hair bulb leading to hypertrichosis. UVA alone does not have such a potent stimulatory effect as is obvious in this study.

**Abhey Bhalme**

**Antiandrogenic effects of topically applied spironolactone on the hamster flank organs, Arthur W,**

**Joffery B, Beryn LF et al : Arch Dermatol, 1985; 121:57-62.**

The effects of topically applied spironolactone on the sebaceous glands of flank organs in adult male Syrian golden hamsters were investigated. Daily treatment with spironolactone (0.3 mg and 3 mg) on one side for 27 consecutive days significantly reduced the size of the treated flank organs, while the contralateral flank organs remained unchanged. Lower concentrations were ineffective. Cyproterone acetate topical therapy resulted in bilateral reduction of the flank organs. In vivo measurement of the palpable bulk of the flank organs correlated with the flank organ volumes as determined by the computer assisted planimetry of serial histologic sections. Dry weights of seminal vesicles in the animals treated with spironolactone did not differ significantly from those of the control group, while topically applied cyproterone acetate significantly reduced the seminal vesicle weight. Thus, topically administered spironolactone appears to have only local antiandrogenic effects as indicated by the lack of changes in the untreated contralateral flank organs and in the weights of seminal vesicles, compared to topical cyproterone acetate which had systemic effects as well.

**Omar Jabr**

**13-cis-Retinoic acid in conglobate acne. A follow up study of 14 trial centres, Hennes R, Mack A, Schell H et al : Arch Dermatol Res, 1984; 276:209-215.**

Eighty seven patients (82 males, 5 females) having acne conglobata were treated with different dosage regimens using 13-cis-retinoic acid (isotretinoin) over a 12-month period. The first (control) group was treated with 1 mg/kg body weight (Kbw) orally for 3 months without any further treatment; a second group received 1 mg/Kbw for 3 months followed by 0.2 mg/Kbw for a further 3 months; a third group received 0.5 mg/Kbw for 3 months followed by 0.2 mg/

Kbw for another 3 months, the fourth group was given 0.2 mg/Kbw for 6 months. Within 3 months of strating the treatment, if an improvement of 66% was not obtained, the dosage was increased or maintained but not stopped.

Most patients continued to improve for upto 2 months even after stopping the treatment. The results were best with the 2nd group (81% in remission at the end of 12 months) and least with the 4th group. Side effects included drying of the labial and nasal mucosae, scaling of the face, and cheilitis in all patients, and these increased in severity with the dosage. Two developed a transient hypertriglyceridemia and one patient, hypercholesterolemia. The authors recommend 1 mg/Kbw as the initial dose for 3 months, and then if 75% improvement is not achieved, to continue 0.5 mg/Kbw for another 3 months, tapering the dose to 0.2 mg/Kbw later. The novice therapist is advised to start with 0.5mg/Kbw initially, till he gains further experience.

Vijay Battu

**Acne conglobata responding to buserelin, a gonadotropin-releasing hormone analogue, Waxman J, Rustin MHA, Perry L et al : Brit J Dermatol, 1983, 109 : 679-681.**

A 65-year-old man having a well-differentiated prostatic adenocarcinoma had been suffering from severe nodular and cystic acne on his back, chest and face, since the age of 17 years. In spite of several courses of long-term antibiotic therapy, there was no response. He responded to buserelin 200/ug five times daily given as an intra-nasal spray. The exact hormonal change that caused relief of acne is uncertain, but levels of testosterone, dihydrotestosterone, 5-alpha 3-alpha androstenediol, estradiol, progesterone, prolactin, luteinizing hormone and FSH were observed to decrease. Buserelin seems to block the release of FSH and LH.

Abhey Bhalme

**Metastatic prostate carcinoma manifesting as penile nodules, Powell FC, Venencie PY and Winkelmann RK : Arch Dermatol, 1984; 120 : 1604-1606.**

Prostatic carcinoma metastasizing to the skin is rare, the lesions usually comprise of nodules, ulcers or vascular growths. Unusually, pruritus, sebaceous cyst like lesions, turban tumours, zosteriform patterns, and Sister Joseph's nodules have also been reported.

The authors report the very rare occurrence of penile lesions as the only cutaneous secondary deposits in 3 cases of prostatic carcinoma. In two of these, the carcinoma of prostate was noticed earlier than the penile deposits. Two patients died within 2 years, while the third responded to intravenous mitomycin. In the previously reported 39 cases of penile secondaries also, there were no other skin lesions, and the prognosis was consistently poor.

Vijay Battu

**Short course multidrug therapy for paucibacillary patients in Guyana : Preliminary communication, Rose P : Leprosy Rev, 1984; 55:143-147.**

In Guyana, 303 paucibacillary leprosy patients (108 TT, 192 BT and 3 indeterminate) were given rifampicin 600 mg once a month and dapsone 100 mg a day for 6 months as per WHO recommendations. This group included those (exact number not specified) who had received dapsone monotherapy and were in an inactive phase but had not reached disease arrested phase. All the patients were evaluated for a period of 10 months. TT patients showed complete clearance or continued to regress at a satisfactory rate and there were no relapses. BT cases took a longer time to resolve and most of them improved steadily. Only two BT patients, who had not received dapsone earlier developed relapse within 8 months of completing the treatment. According to the author, relapse of 1% in BT cases is acceptable and hence the WHO recommendations for paucibacillary patients are so far effective. However the author feels that it is possible that the relapse rate may rise in future when all patients are new patients.

K. Seetharam