ABSTRACTS FROM CURRENT LITERATURE

Antifungal drugs affecting the chemotaxis of polymorphonuclear neutrophils, Davies RR and Zaini F : Sabouraudia, 1985; 23 : 119-123.

Investigations on the chemotaxis of polymorphonuclear neutrophils (PMN) towards a cytoplasmic extract of *Trichophyton rubrum* in the presence and absence of antifungal drugs are described. It is shown that with griseofulvin, clotrimazole, econazole, ketoconazole, miconazole and natamycin at 1 mg L^{-1}, the number of PMNs migrating was significantly reduced. After 3 hours of exposure to 10 mg L^{-1}, none of the drugs tested had any discernible effect on the viability of PMNs, or the complement. While the chemo-suppression of PMN chemotaxis may be an undesirable feature in a drug used to treat systemic mycoses, it is unlikely to have any adverse effect in the therapy of dermatophytoses. The authors wonder whether the addition of a corticosteroid to an antifungal drug which is also anti-inflammatory, is clinically advantageous in topical preparations for ringworm of the skin and think it would be worthy of investigation.

Bhushan Kumar

Cutaneous side effects of beta-adrenergic blockers, Richards S : Aust J Dermatol, 1985; 26 : 25-28.

The cutaneous side effects of various beta-adrenergic receptor blocking drugs include oculo-muco-cutaneous syndrome, lupus erythematosus, psoriasiform eruptions, lichenoid eruptions, eczematous eruptions, Peyronie's disease, alopecia, hyperpigmentation, Raynaud's phenomenon, tingling of the scalp, urticaria, exanthemata and erythema multiforme. The ocular manifestations of oculo-muco-cutaneous syndrome include burning, gritty discomfort and photophobia. Kerato-conjunctivitis sicca, conjunctival scarring, corneal perforation and increased lacrimation also have been noted. An antibody which binds to the intercellular region of xenogenic epidermal tissue has been shown by indirect immunofluorescence to be present in the serum of patients with practolol induced eye damage.

Eczematous eruptions have been reported with both oral and topical (for glaucoma) beta-blocker therapy. Patch testing in a group with metoprolol-induced dermatitis showed positivity in four of the six patients examined.

K Pavithran

Eosinophils in the cellular infiltrate of granuloma annulare, Silverman RA and Rabinowitz AD : J Cutan Pathol, 1985; 12 : 13-17.

Granuloma annulare is histopathologically characterized by necrobiotic collagen associated with an infiltrate of histiocytes and lymphocytes. Eosinophils have been described in the infiltrate of granuloma annulare, but the frequency distribution and extent to which these cells are found are not well documented In this retrospective study, the authors sought to identify eosinophils in consecutively submitted specimens of GA accumulated over a 6-year period, and found eosinophils in 18/45 (40%) cases of GA, without significant variation relating to the histopathologic sub-pattern. Eosinophils were seen in over half the cases of deep GA and in over one-third of the cases of superficial GA. This study demonstrates the lack of specificity of eosinophils in differentiating superficial GA from deep GA, and also granuloma annulare from necrobiosis lipoidica, and GA from occasional clinical simulants such as arthropod bite reaction which histopathologically show eosinophils.

K Pavithran

Histopathology of Gottron's papules, Hanno R and Callen JP : J Cutan Pathol, 1985; 12 : 389-394.

The histopathologic diagnosis of dermatomyositis at the poikilodermatous skin rash is usually based on the findings of epidermal atrophy, liquefaction degeneration of the basal layer and vascular dilatation. PAS-positive basement membrane thickening and alcian blue-positive mucin deposits in the upper dermis are also reported. Gottron's papules which are violaceous papules or plaques occurring over the dorsal surfaces of the joints of the hands may be a presenting sign.

The authors biopsied Gottron's papules in 11 cases of known dermatomyositis to determine whether the findings were similar to those in the poikilodermatous eruption usually biopsied in this disease. All the histopathological features of poikilodermatous dermatomyositis were seen in Gottron's papules also. But in contrast to the poikilodermatous myositis, in Gottron's papules the epidermis showed hyperplasia consisting of acanthosis or papillomatosis. The epidermal atrophy was rare. The authors concluded that a specific diagnosis of dermatomyositis can often be made on a biopsy of a Gottron's papule.

K Pavithran

UV-B phototherapy for pityriasis lichenoides, Tham SN : Aust J Dermatol, 1985; 26 : 9-13.

Pityriasis lichenoides is an uncommon benign disorder. Two forms are known, pityriasis lichenoides et varioliformis acuta also referred to as Mucha-Habermann disease, and the milder form called pityriasis lichenoides chronica. Eighteen patients with long-standing pityriasis lichenoides were treated with UV-B phototherapy. Fourteen (82.4%) patients had a good response with complete clearance in 9 patients and more than 90% clearance in 5 cases. Of the 14 patients who cleared, 12 were followed up for a period ranging from 6 months to three years and five months. Six patients remained clear. Four had a few recurrent lesions which did not necessitate re-treatment and three of them eventually cleared spontaneously. Two patients who had relapses which cleared on re-treatment with UV-B phototherapy subsequently remained clear after a further six months and 17 months follow-up, respectively.

How UV-B works in the treatment of pityriasis lichenoides is still unknown. Although immuno-reactants have been detected at the dermo-epidermal junction and around the vessel walls, the pathogenesis is uncertain. UV-B radiation affects lymphocytes and immune function and its therapeutic effects could be mediated through immune mechanisms.

K Pavithran

A histologic study of epithelial dysplasia in oral lichen planus, Odukoya O, Gallagher G and Shklar G : Arch Dermatol, 1985; 121 : 1132-1136.

One hundred cases of oral lichen planus were reviewed together with 100 non-specific oral mucosal inflammatory lesions as a control group. The presence of dysplasia was noted, using well-established histopathologic criteria. Mild dysplasia was found in 57% cases, moderate dysplasia in 9%, and severe dysplasia in 2% cases. In the control group, mild dysplasia was observed in 32% cases, moderate in 10%, and severe dysplasia was not present. It is suggested that, while mild or moderate dysplasia may not indicate precancerous potential, severe dysplasia in lichen planus may signify the development of a precancerous lesion.

A K Bajaj

Bullous pemphigoid antibodies, Goldberg DJ, Sabolinski M and Bystryn JC : Arch Dermatol, 1985; 121 : 1137-1140.

Human skin, the target organ for the bullous pemphigoid (BP) antibodies, is thought to be a less sensitive substrate for the indirect immunofluorescence assay of BP antibodies than monkey or guinea pig esophagus. To examine the reasons for this puzzling phenomenon, a comparison was made between the titers of BP antibodies obtained when human skin, monkey and guinea pig esophagus were used as substrates. It was found that the titers of BP antibodies obtained with human skin from sites commonly involved in BP(flexure arm,flexure thigh,popliteal fossa) were as high and usually higher than those obtained with monkey and guinea pig esophagus. In contrast, much lower titers were obtained with human skin from sites rarely involved in the disease (scalp, face, extensor arm). These findings suggest that human skin as a substrate is at least as sensitive as monkey or guinea pig esophagus for the indirect immunofluorescence assay of BP antibodies when the skin is obtained from regions on the body commonly involved in BP.

A K Bajaj

Isotretinoin vs etretinate therapy in generalized pustular and chronic psoriasis, Moy RL, Kingston TP and Lowe NJ : Arch Dermatol, 1985; 121 : 1297-1301.

The aromatic retinoid, etretinate (Ro-10-9359), has been shown to be effective as a single agent as well as in combination with other therapeutic modalities for the treatment of chronic plaque, exfoliative, palmo-plantar and generalized pustular psoriasis. Isotretinoin (13-cis-retinoic acid) is effective in the treatment of acne but less effective in the treatment of psoriasis. The present study was undertaken to investigate the efficacy of isotretinoin for the treatment of generalized pustular psoriasis and compare its efficacy with etretinate in plaque psoriasis.

Eleven patients with generalized pustular psoriasis were treated with isotretinoin. Four patients received 2.0 mg/kg/day, while seven received 1.5 mg/kg/day. When all pustular lesions cleared, the dosage of isotretinoin was reduced. Since recurrence occurred in all patients, the dose was increased to the original level and continued as maintenance therapy for six weeks after pustulation cleared. Each patient was followed up for at least six months and seven patients were followed up for more than 18 months.

Twenty nine patients with chronic plaque psoriasis were assessed in two separate studies. Ten patients (body surface involvement 20% to 50%) were treated with isotretinion 1.5 mg/kg/day as a single agent. Nineteen patients (body surface involvement 40% to 90%) were treated with etretinate, 0.75 mg/kg/day as a single agent. The etretinate treated group had more extensive psoriasis, which was more resistant to other treatment. Treatment was continued for at least eight weeks in all cases.

Ten of 11 cases with generalized pustular psoriasis were successfully treated with isotretinoin. Only one of the patients did not respond. Follow up of these patients for a period of upto 24 months showed that the majority subsequently required an alternative agent to achieve satisfactory control of their psoriasis.

In chronic plaque psoriasis after eight weeks of treatment, 18 of 19 patients treated with etretinate had either a complete or moderate response, while only four of ten patients treated with isotretinoin were moderate or complete responders. Thus, etretinate was more effective than isotretinoin in inducing a partial or complete clearing of chronic plaque psoriasis.

A K Bajaj

Herpes gestationis, Fine Jo-David and Omura EF : Arch Dermatol, 1985; 121 : 924-926.

Herpes gestationis is a rare bullous disease that first develops during early pregnancy, usually flares at the time of delivery, and then subsides during the post-partum period. Subsequent pregnancies may be associated with disease recurrence. In addition, post-partum flares may be precipitated by menses or the use of oral contraceptives. In rare instances, disease activity continues for months to a few years post-partum, although usually the extent of blister formation is minimal. The authors in this report describe a patient having herpes gestationis having the disease for the past over 11 years after post-partum despite aggressive therapy with corticosteroids, dapsone and various immunosuppressants. The longest duration reported todate has been four years.

A K Bajaj

X-linked inheritance of epidermodysplasia verruciformis, Androphy EJ, Dvoretzky I and Lowy DR : Arch Dermatol, 1985; 121 : 864-868.

Epidermodysplasia verruciformis (EV), first described in 1922 by Lewandowsky and Lutz, is a rare disorder of chronic human papilloma virus (HPV) infection. Affected individuals develop extensive cutaneous verrucae from an early age and, in contrast with ordinary warts, those in EV do not spontaneously regress. In EV susceptibility to infectious agents is limited to HPVs; it does not extend to other viruses or bacteria. Over the past 10 years, it has become clear that there is a plurality of HPV types. An individual with EV may often be infected with one or several of these unusual HPV types as well as with the more common types of HPV. Cutaneous squamous cell carcinomas develop in association with the warts in a high percentage (30% to 80%) of patients with EV. Furthermore, these malignant changes are limited to those patients with EV infected with certain HPV types, principally HPV 5 or 8.

Approximately 25% of reported cases of EV are familial; in these cases the inheritance is believed to be autosomal recessive. In the present report the authors describe a family with epidermodysplasia verruciformis in which only male members are affected. Whereas none of the index patient's ten children have EV, four of eight grandsons born to his daughters have inherited the disorder. The inheritance in this kindred most likely results from an X-linked recessive genetic defect. Since, other kindreds have been described with autosomal inheritance, this novel inheritance pattern suggests that the persistent high clinical susceptibility to HPV infection characteristic of EV may result from defects in either of at least two different genetic loci, one of which may be located on the X-chromosome.

A K Bajaj

Therapeutic evaluation of effectiveness of cimetidine in the treatment of hirsutism, Buckshee K and Ahuja MMS : Ind J Med Res, 1985; 82 : 562-564.

Thirty five hirsute women (12-40 years of age) with adrenal and ovarian tumours excluded, were treated with cimetidine in the initial dose of 1,400 mg from 5-25th day of the menstrual cycle (in patients with regular cycles) or for 21 days followed by a 7-day gap (in patients with irregular cycles). Ten (28.6%) of these patients showed a significant decrease (of more than 6 points) in the total body hair score (method of Ferriman and Gallaway). In 7 (20%), the decline in hair score was less than 6 points, while another seven patients showed no change in the hair score. Eleven (31.4%) women showed an increase in hair growth. The hair became finer in 21 (60%) and lighter in colour in 20 (57.1%)

of the patients. The response was variable in relation to the site of hair growth, the face being the most responsive site. Beneficial effects were evident within 1-6 months, but in most patients a significant response was achieved by 9-12 months of therapy. In 5 (14.2%) patients, the response could be maintained on 400 mg of cimetidine after 18 months of therapy. The acne and oiliness of skin improved as well; the adverse effects were mild and transitory.

Neena Vaswani

Enzyme production of propionibacteria from patients with acne vulgaris and healthy persons, Hoffler U, Gehse M, Gloor M et al : Acta Dermato-Venereol, 1985; 65 : 428-432.

The role of bacteria in the aetiology of acne vulgaris has been widely discussed. The aim of this study was to determine whether there are differences in the production of five extracellular enzymes between propionibacteria strains isolated from patients with acne vulgaris and healthy persons. A total of 375 strains of propionibacteria isolated from pustules, comedones and from normal skin of patients with acne vulgaris and from healthy persons have been examined for their enzymatic activity. In contrast to healthy individuals, protease and caseinase production of strains from acne patients was significantly lower. On the other hand, DNA'ase production of strains from acne lesions was increased and lecithinase could be demonstrated in strains from acne patients only. By splitting cellular tissue detritus and skin surface lipids, it seems possible that these two latter enzymes of propionibacteria act as etiological factors in the complex pathogenesis of acne vulgaris.

K Pavithran

Lichen amyloidosus : a new therapeutic approach, Monfrecola G, Iandoli R, Bruno G et al : Acta Dermato-Venereol, 1985; 65 : 453-455.

Dimethylsulphoxide (DMSO) is a colourless and odourless solvent used as a paint and varnish remover. In medicine it is proposed as an analgesic and anti-inflammatory topical agent. It enhances cutaneous penetration of topically applied agents. It has been reported that a single parenteral dose of DMSO in patients with amyloid nephropathy causes excretion of amyloid-like fibrillar substance in urine. Oral DMSO also has been reported to be effective in the treatment of renal amyloidosis. Here the authors report a case of lichen amyloidosus in a 74-year-old male. He was treated with topical application of DMSO, 4 ml on each leg, once daily for two weeks. Itching improved within 5 days of therapy. Remarkable flattening of the papules was obtained within two weeks. The clinical result was confirmed by histopathological examination which revealed partial disappearance of amyloid deposits. The remarkable improvement of clinical manifestation and histopathological picture noted in this patient indicates that topically-applied DMSO has a therapeutic potential in lichen amyloidosus.

K Pavithran

Kveim test reactivity in Melkersson-Rosenthal syndrome (Cheilitis granulomatosa), Lindelof B, Eklund A and Liden S : Acta Dermato-Venereol, 1985; 65 : 443-445.

Melkersson-Rosenthal syndrome consists of a triad of lingua plicata, recurrent facial oedema and intermittent or permanent facial nerve paralysis. Today, most authors consider Miescher's cheilitis granulomatosa as a monosymptomatic form of the syndrome. The exact aetiology of Melkersson-Rosenthal syndrome is unknown. Some consider this, especially

cheilitis granulomatosa, as a variant of sarcoidosis. Their opinion is based on the histopathological appearance of the granulomas often found in the oedematous tissue of lip and/or face. Here, the authors performed Kveim test, a test for sarcoidosis in 7 patients, two with complete and 5 with abortive forms of Melkersson-Rosenthal syndrome. Kveim test was found to be negative in all 7 patients tested. Serum levels of angiotensin converting enzyme and calcium were normal. The results of this study, thus show that there is no relation between sarcoidosis and Melkersson-Rosenthal syndrome.

K Pavithran

The ultrastructure of *Treponema pallidum* isolated from human chancres, Poulsen A, Kobayasi T, Secher L et al : Acta Dermato-Venereol, 1985; 65 : 367-373.

This study presents the ultrastructure of *Treponema pallidum* freshly isolated from human syphilitic chancres. The treponemes were enveloped by a trilaminar cytoplasmic membrane and a trilaminar periplastic membrane. An acorn-like nose piece with a length of about 60 nm and overall width of 50 nm formed the terminal parts of the treponemes. The head of the nose piece was separated from the cytoplasmic body by a neck of dark, homogenous structure, in which two circular electron-dense areas could be demonstrated. The central part of the periplastic membrane corresponds to the protective mucoid layer. In undamaged organisms, bunches of axial filaments were seen to entwine the whole cytoplasmic body without any disruption or overlapping. The number of axial filaments varied between three and four. The axial filaments and nose pieces seem to differ from those of Nichol's strain.

K Pavithran

Familial rolled and spiral hairs with palmoplantar keratoderma, Ortonne JP, Juhlin L, Baze P et al : Acta Dermato-Venereol, 1985; 65 : 250-254.

Rolled hairs have been reported in association with Cushing's disease, juvenile hypothyroidism and neurodermatitis. Here the authors report a 59-year-old man with hemiplegia, diabetes and alcoholic cirrhosis who had associated palmo-plantar keratoderma and rolled spiral hairs on the abdomen and extremities. His father also had similar skin manifestations but brother and sister had only palmo plantar keratoderma. Scanning electron microscopy of the rolled hairs showed that they were coiled in a spiral around their own axis. These spiral hairs had lower cysteine than the normal appearing hairs on the body. The scalp hair appeared normal but was low in cysteine which was compensated by an increase in theonine. Urine analysis showed a decrease of cysteine.

K Pavithran

Skin uptake of gallium 67 in cutaneous sarcoidosis, Huisman PM and Royen EAV : Acta Dermato-Venereol, 1985; 65 : 243-247.

Gallium 67 (Ga-67) scintigraphy is a valuable tool in the diagnosis and follow-up of patients suffering from pulmonary sarcoidosis. The degree of Ga-67 uptake in the lungs reflects disease activity. Here the authors describe the intense uptake of Ga-67 in the skin of a 26-year-old man, suffering from cutaneous sarcoidosis of the scalp. Systemic involvement of parotid glands and mediastinum was also demonstrated by Ga-67 scintigraphy. Corticosteroid therapy reversed promptly the pathologic Ga-67 uptake. Ga-67 scintigraphy should be performed in all patients suffering from cutaneous sarcoidosis as being the most sensitive method to demonstrate systemic involvement. The mechanism of

uptake of Ga-67 in skin lesions of sarcoidosis is not clear. In alveolitis of sarcoidosis its uptake reflects the intensity of the T-lymphocyte mediated component. But the skin lesions in the case reported here, were characterized by scarce lymphocyte infiltration and consisted mainly of epithelioid granulomas.

K Pavithran

An immunohistochemical staining of epidermal Langerhan's cells in tinea cruris, Emtestam L, Kaaman T, Hovmark A et al : Acta Dermato-Venereol, 1985; 65 : 240-272.

The Langerhan's cells have an antigen presentation function in the human epidermis. In electron microscopic studies, apposition of these cells and lymphocytes has been described in allergic contact dermatitis. Human epidermal Langerhan's cells may induce a T lymphocyte response to trichophytin. In this study epidermal Langerhan's cells were investigated in fresh cryostat sections of ten biopsies from patients with mycologically proven tinea cruris, using OKT6 monoclonal antibodies and avidin-biotin-immunoperoxidase. Compared to the controls more epidermal Langerhan's cells and an increased number of LC in the upper half of the epidermis were found in the section from tinea cruris patients. In a double staining method for both OKT6-positivity and hyphae, a tendency towards gathering of LC and fungal elements was found. The findings of an increased number of LC in the upper half of the epidermis, LC and dendritic staining near hyphae are in agreement with the hypothesis that the LC are responsible for the initial uptake and processing of the antigen before delivery to the T lymphocytes in dermatophytosis.

K Pavithran

Topical zinc sulphate augmentation of human delayed type skin test response, Lin RY, Busher J, Bogden GJD et al : Acta Dermato-Venereol, 1985; 65 : 190-193.

Zinc is a trace element that has important role in immunological responsiveness. Zinc deficiency may be associated with diminished lymphokine production. The ability of topical zinc sulphate to augment the cutaneous delayed hypersensitivity response to Candida antigen was evaluated in 47 adults (15 controls and 32 hospitalised patients). In each patient intradermal test with Candida antigen was immediately followed by topical application of 10% zinc sulphate in Aquaphor ointment. The reaction size was assessed in a single blinded manner. A significant number of subjects who were tested, showed an augmented cutaneous delayed hypersensitivity response in the test site on which topical zinc sulphate had been applied. This study suggests that since delayed type hypersensitivity reactions appear to be enhanced locally in the skin, zinc induced immunopotentiation may aid treatment of patients afflicted by chronic cutaneous infections by fungi, viruses, or mycobacteria. Host defence against these organisms is known to involve cell mediated immunity.

K Pavithran

Fibronectin distribution in nailfold biopsies of scleroderma (systemic sclerosis) patients, Chen Z, Maricq HR, Pilia PA et al : Acta Dermato-Venereol, 1985; 65 : 185-189.

Fibronectins are high molecular weight glycoproteins found both in plasma and in various tissues associated with cell surfaces, basement membranes and extracellular connective tissue matrix components. Cells like fibroblasts, macrophages and endothelial cells are able to synthesize fibronectin in tissue culture. Increased fibronectin may be associated

with pathological conditions in which increased fibrous tissue formation occur. Scleroderma is a condition in which both small blood vessel lesions and fibrosis are prominent.

The distribution of fibronectin was studied in skin biopsies of 13 patients with scleroderma, 7 patients with dermatomyositis and 10 normal controls by direct immunofluorescence. In normal tissues, continuous or segmental linear staining of the dermo-epidermal junction was seen. Papillary and sub-papillary dermis, and papillary capillary loops showed a reticular pattern of deposition with fibronectin. Scleroderma patients revealed similar staining in the dermis and dermo-epidermal junction. The reticular distribution of fibronectin appeared to stain more intensely in the dermis than in controls. The fibronectin deposition in the walls of blood vessels also was markedly increased. The findings in dermatomyositis patients also were similar. The authors conclude by commenting that fibronectin associated with capillary walls may be at least partly due to new synthesis, possibly by endothelial cells.

K Pavithran

Palmo-plantar lesions in psoriatic patients and their relation to inverse psoriasis, tinea infection and contact allergy, Fransson J, Storgards K and Hammar H : Acta Dermato-Venereol, 1985; 65 : 218-223.

The aim of this study was to characterize the clinical picture in 107 psoriatics with palmo-plantar involvement. They were selected from 921 patients who were diagnosed to have psoriasis in 1976. Fifty percent of the patients with palmo-plantar psoriasis had flexural changes. The frequency of palmar involvement in patients with inverse psoriasis compared to patients with psoriasis vulgaris was increased 5.3 times. A dermatophyte infection was observed in one of 48 patients examined for tinea infection. Positive patch tests were obtained in 8 of 47 patients, 7 of whom had more than one test reaction. The results show that contact allergy and fungal infection are not important factors in maintaining palmo-plantar psoriasis.

K Pavithran

Increased macrophage activity in psoriasis, Koh MS, Majewski BBJ and Rhodes EL : Acta Dermato-Venereol, 1985; 65 : 194-198.

Eighteen psoriatic patients and 23 healthy control subjects were studied for macrophage activity. Macrophages derived from psoriatic monocytes were found to be more active than those from control monocytes. Psoriatic macrophages produced more beta-glucuronidase and lysozyme than control macrophages. It seems that in psoriasis there is an intrinsic abnormality which is expressed in the bone marrow. This has led to the concept that the primary expression of the 'psoriatic' gene is in the monoblast; this is perpetuated in the promonocyte, the monocyte and finally the macrophage. The precise nature of this defect, although unknown, is probably manifested by a decrease in cyclic AMP level. Although it is apparent that neutrophils, monocytes and macrophages in psoriasis behave abnormally, the relationship this bears to the proliferative changes in the epidermis has yet to be elucidated. The possibility that the macrophage produces substances which enhance epidermal cell proliferation as it does for fibroblasts and vascular tissue cannot be discarded.

K Pavithran

Treatment of necrobiosis lipoidica diabeticorum with low-dose acetyl salicylic acid, Beck HI, Bjerring P, Rasmussen I et al : Acta Dermato-Venereol, 1985; 65 : 230-234.

Recently there are several reports of treating necrobiosis lipoidica diabeticorum (NLD) with acetyl salicylic acid. The rationale for this

treatment is based on the observation that NLD probably is caused by vasculitis and vascular occlusion in the small vessels as often seen at histopathological examinations. Besides, the platelets in diabetic persons show increased tendency to spontaneous aggregation. Acetyl salicylic acid inhibits the cyclo-oxygenase converting arachidonic acid into prostaglandins in the vessel walls and thromboxanes in platelets. Thromboxane is considered to be prothrombotic and acting as a vasoconstrictor and is able to induce aggregation of the platelets.

Sixteen patients with clinically and histopathologically verified NLD lesions were treated with either 40 mg acetyl salicylic acid or placebo daily for 24 weeks in a double blind control study. The drug could not prevent progression of old NLD or development of new NLD in spite of inhibition of the aggregation of the platelets in the acetyl salicylic acid group. The pathogenesis of NLD is still poorly understood, but this trial demonstrates that platelet aggregation does not play an important role in the development of NLD as previously suggested.

K Pavithran

Increased platelet aggregation in psoriasis, Hayashi S, Shimizu I, Miyauchi H et al : Acta Dermato-Venereol, 1985; 65 : 258-261.

Psoriatic patient suffers an abnormally high incidence of occlusive vascular disease such as coronary thrombosis, thrombophlebitis, cerebro-vascular accident and pulmonary embolism. These facts made the authors to investigate platelet aggregation in psoriatic patients, because of the potential importance of abnormal platelet behaviour in the genesis of occlusive vascular disease. The patients studied included 17 males and 8 females with vulgaris-type psoriasis. Among them 6 had diabetes mellitus. Platelet aggregation was measured in fasting platelet rich plasma in patients studied, 50 normal controls and 24 diabetics. The aggregating agents employed to induce platelet aggregation included ADP, epinephrine and collagen. Platelet aggregation was significantly increased in psoriatics compared with normal controls. An additive effect was observed when diabetes was associated with psoriasis, with platelet aggregation being further increased by ADP. Platelet aggregability was re-evaluated in 7 psoriatics after they presented with clearing of the rash. The increased platelet aggregation with ADP and epinephrine was significantly reduced when the skin lesions had cleared. In view of the important role of platelets in occlusive vascular disease, enhanced platelet aggregability may also be involved in the genesis of the higher incidence of occlusive vascular disease in the psoriatic patient.

K Pavithran

Mitral valve prolapse in psoriatic arthritis, Pines A, Ehrenfeld M, Fismen EZ et al : Arch Int Med, 1986; 146 : 1371-1373.

The association of cardiac valvular lesions, mainly aortic insufficiency and seronegative spondyloarthropathies is well known. It is more common in ankylosing spondylitis and Reiter's syndrome and rare in other diseases of the same group. It is more prevalent in severe form of spinal and peripheral joint disease, male sex and in the presence of HLA-B27. However few studies of cardiac lesions in psoriasis and psoriatic arthritis exist. So the present study. Twenty five patients with psoriatic arthritis were studied by echocardiography. Study group included15 men and 10 women with a mean age of 46.5 ± 14.6 years. Twenty two patients suffered from peripheral disease whereas 3 also had axial involvement. No aortic valve lesions were found, however mitral valve prolapse (MVP) was detected in 14patients (56%), 9 men and 5 women. The mean age, mean duration of psoriasis, and mean duration of arthritis were similar in patients with and without MVP. HLA tissue typing which was done in 9 patients with MVP, revealed only one patient with HLA-B27. There was no predominence of any

of the typical antigens found in psoriasis (HLA-B13, HLA-CW6). In a control group of 32 psoriatics without arthritis, only 2 (6.4%) suffered from MVP.

Bhushan Kumar

Penicillin allergy and desensitisation in serious infections during pregnancy, Wendel Jr GD, Starr BJ, Janison RB, Molina RD and Sullivan TJ : Lancet, 1985; 2 : 1229.

Fifteen pregnant women with histories of penicillin allergy, who required penicillin for treatment, were skin tested by the prick method with benzyl penicillin G, benzyl penicilloic acid, cephalothin and penicilloyl polylysine, followed by intradermal testing with diluted and then concentrated solutions if necessary. All had positive immediate wheal and flare skin tests. They were then desensitized by giving them oral penicillin, starting with 100 units and doubling the dose every 15 minutes until, at the end of 33 hours, they had received a cummulative dose of 1.3 million units. After this procedure, they were then given full parenteral therapy with penicillin G or ampicillin. The only reactions were pruritus in 3 and urticaria in 2, none of the reactions being serious enough to require interruption of either desensitization or therapy. All of the infections were cured. This shows that oral desensitization is an acceptable, safe approach to therapy in pregnant women who are allergic to penicillin.

Bhushan Kumar

The response of psoriatic epidermis and microvessels to treatment with topical steroids and oral methotrexate, Bravermen IM and Sibley J: J Invest Dermatol, 1985; 85 : 584-586.

In a previous study, the authors had shown that in psoriatic plaques successfully treated with PUVA and Goeckerman therapy, the capillary loops began to shorten and return towards normal in 3-8 days before the labeling index (LI) of the epidermal basal cells began to decrease. This data supported the concept that the initiating factors in psoriasis are in the epidermis, but that epidermal hyperplasia cannot occur without vascular proliferation. The authors studied the same parameters as for PUVA and Goeckerman treatment, but for oral methotrexate and topical steroids under occlusion. The LI of the basal cells returned to normal in 3 days and near normal in 1. The histologic features of the psoriatic epidermis became normal except for mild to moderate acanthosis, but the capillary loops in the dermal papillae retained their venous capillary ultrastructure and showed no signs of reversion to a normal arterial capillary configuration. The lack of response of the dermal capillaries to the topical steroid and oral methotrexate during the initial clinical improvement raises the possibility that the clinical relapses in psoriasis which may promptly follow discontinuation of topical steriod therapy and oral methotrexate may be related to an inability of these drugs to restore the microvasculature to normal in such situations.

Bhushan Kumar

Influence of tetracycline phototoxicity on the growth of cultured human fibroblasts, BJellerup M, KJellstrom T and LJunggren BO : J Invest Dermatol, 1985; 85 : 573-574.

It is well documented that tetracyclines are able to induce light reactions in human skin and nails. The incidence of skin photosensitivity following treatment with demethylchlortetracycline (DMCT) has been reported to be especially high. Different experimental models have also been used for studying tetracycline phototoxicity. In the present study the authors have used cultured human skin fibroblasts to

study phototoxic effect of 8 different commercial tetracycline derivatives with long wave ultraviolet radiation (UVA) on their growth. Chlortetracycline and doxycycline both at a concentration of 50 μg/ml and 19 J/cm^2 of UVA resulted in total cell death with no recovery during a 14 day observation period. Demethylchlortetracycline also showed strong photosensitizing properties with an arrested cell division for 7 days followed by a recurrence of cell growth. The other tetracyclines tested under identical conditions had only weak or no phototoxic influence on cell growth. This experimental data correlates very well with clinical reports and comparative phototoxicity trials in humans.

Bhushan Kumar

Topical minoxidil dose-response effect in alopecia areata, Weiss VC, West DP, Buys CM et al : Arch Dermatol, 1986; 122 : 180-182.

Topical 5% minoxidil solution was used to treat, 47 patients with severe alopecia areata. Forty patients (85%) had terminal hair regrowth after 48 to 60 weeks of treatment. In the majority of patients, hair regrowth was not cosmetically acceptable. Data were compared with those from a previous study with topical 1% minoxidil solution. Both the percentage of responders and the quality of their hair regrowth were significantly greater with 5% than with 1% topical minoxidil solution. One patient developed an allergic contact dermatitis to minoxidil, but no systemic side effects were detected. The results strongly suggest a dose-response effect for topical minoxidil treatment of alopecia areata and the importance of exploring modification in dosing and delivery systems to enhance therapeutic efficacy.

A K Bajaj

Port-wine stains, Smoller BR and Rosen S : Arch Dermatol, 1986; 122 : 177-179.

Port-wine stains result from a progressive ectasis of the cutaneous superficial vascular plexus. One hypothesis for the pathogenesis of this lesion is an abnormal neural regulation of blood flow. Biopsy specimens of 11 port-wine stains, seven hemangiomas, and 17 benign lesions were stained for S 100 protein using immunoperoxidase techniques. All specimens were of facial biopsies or excisions and were evaluated for vessels per square millimeter, nerves per square millimeter, vessel-to-nerve ratio, and frequency of vessels coursing within 0.03 mm of nerves. These variables were evaluated in the superficial 0.3 mm of dermis, a zone that includes almost all abnormal port-wine-stain vessels. Controls showed 18.3 ± 2.8 vessels/sq mm ($\pm$SD), 21.1 ± 9.2 nerves/sq mm, 0.9 ± 0.3 vessels to nerves ratio, and $75\% \pm 11\%$ of vessels coursing within 0.03 mm of nerves, values that did not alter with age. Port-wine stains had a significant decrease in nerve density and increase in vessel-to-nerve ratio when compared with normal skin; only $17\% \pm 3\%$ of vessels were associated with nerves in port-wine stains. These findings document a deficit in the number of perivascular nerves in port-wine stains and raise the possibility that a lack of neural modulation of vascular flow may be involved in the pathogenesis of port-wine stains.

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