ABSTRACTS FROM CURRENT LITERATURE

Eosinophilic fascitis, reactive hepatitis and splenomegaly, Jacobs MB : Arch Int Med, 1985; 145 : 162-163.

Eosinophilic fascitis is an acute, idiopathic inflammatory disorder manifested often by tender swelling of the extremities after extreme physical exertion. It was first reported by Shulman in 1974. Although visceral involvement is usually absent in this syndrome, pulmonary fibrosis, auto-immune anorexia, thrombocytopenia, Raynaud's phenomenon, Sjogren's disease, oesophageal abnormalities, synovitis, myositis, contractures and carpal-tunnel syndrome have been described. The author describes reactive hepatitis and splenomegaly in his 25-year-old patient with eosinophilic fascitis.

Bhushan Kumar

Natural and artificial skin tanning, Risks and advantages (Review), Raab WP : J Appl Cosmetol, 1984; 2 : 35-47.

In this article, the risks and advantages of natural and artificial tanning are discussed. The natural tanning is caused by the presence of melanin in increased amounts and in fine dispersion. It is stimulated by UVA and UVB. The immediate darkening of premelanin caused by UVA is too weak for photoprotection and does not produce the desired tan. UVB causes typical sunburn and pigmentation 2-3 days later. Even suberythema doses of UVB are known to produce the desired tan. However, UVB interacts with nucleic acids and results in chronic actinic dermatoses and possibly cancer over the years. Comparatively, UVA never provokes malignant tumours.

When sunlight is used for tanning, the following precautions are suggested : (a) slow increase in irradiation time, (b) proper and correct use of sun-protecting creams, lotions and ointments, and (c) oral photoprotection by carotenoids, mainly B-carotene.

Uncontrolled sun-exposure involves several risks. Acute sunburn reaction may sometimes cause even general effects. The chronic effects are premature ageing, chronic actinic dermatosis, actinic keratosis, skin cancer and melanoma. The advantages of sun-tan are the protection of nucleic acids against UVB-induced changes and the aesthetic skin coloration.

Artificial skin pigmentation resembling suntan may be obtained in 3 ways : (1) Coloration of the skin surface, the best example being dihydroxyacetone (DHA), a stable colour develops after 4 hours. However, in 10% of the individuals, the horny layer lacks the substances which react with DHA. The risks of DHA pigmentation are few; but it does not exert any photo-protection. The advantages consist of an improvement in the skin tone.

(2) Skin tanning with artificial light sources such as (a) low pressure luminous tubes (blacklight), or (b) high pressure merucy lamps. Patients with photodermatoses and lightinduced diseases must be excluded, so also patients under any medication. Under proper precautions and guidance, tanning with artificial light carries no risk. The advantage is the formation of melanin, the natural photoprotecting pigment.

(3) Skin pigmentation by oral carotenoids. Two carotenoids in use are B-carotene and canthaxanthine. The best cosmetic and photoprotective effects are obtained when both are combined. In some patients, additional irradiation is advisable to mask the excessive yellow

colour. The advantages of skin tanning with oral carotenoids is the photoprotective action exerted by these compounds deposited in the epidermis. The resulting colour resembles natural tan more if B-carotene and canthaxanthine are taken, than with either carotenoid alone.

A S Kumar

Porphyria cutanea tarda in a seven year old child, Rogers M, Kamath KR and Poulos V : Aust J Dermatol, 1984; 25 : 107-112.

A case of porphyria cutanea tarda is reported in a 7-year-old girl who presented with blisters of the hands, feet, legs and face since 2 years. The blisters were precipitated by either sun exposure or minor trauma. Hypertrichosis of the limbs was also noted. Urinary excretion of porphyrins especially heptacarboxyl porphyrin and uroporphyrin was greatly increased. Faecal excretion of porphyrins also was increased. Skin biopsy showed a dermo-epidermal separation producing a bulla. The case was demonstrated to be a familial type by estimation of uroporphyrinogen decarboxylase in the patient and her family. The case was treated with oral chloroquine which was introduced at a dose of 75 mg twice a week. There was an immediate and dramatic increase in porphyrin excretion. But patient's symptoms had worsened and the liver enzymes had become considerably elevated. Later, the dose of chloroquine was reduced to 75 mg every ten days. On this lower dose, the liver enzymes continued to fall and 3 months after commencement of therapy these were close to normal limits and the patient was free of blisters.

K Pavithran

An unusual porphyrinuria precipitated by viraemia, Taylor GF and Carter NG : Aust J Dermatol, 1984; 25 : 113-114.

A boy aged eleven years showed increased uroporphyrin excretion with reduced erythrocyte uroporphyrinogen decarboxylase activity. There was no photosensitivity or other symptoms of PCT except a high-coloured urine. His mother and one sister also had reduced enzyme activity. According to the authors, this patient has latent type of PCT. The low penetrance of familial PCT has been explained by the apparent need for interaction between the enzyme defect and environmentally encountered substances such as alcohol, oestrogen, hexachlorobenzene and chlorinated phenols. In this reported case, an episode of infectious mononucleosus was responsible for his porphyrinuria. The mechanism is probably the release of stored uroporphyrin from damaged hepatocytes.

K Pavithran

Catecholamine excretion in patients with psoriasis, Ellis VM : Aust J Dermatol, 1984; 25 : 118-120.

The role of cAMP in epidermal keratinization is still uncertain. Beta adrenergic receptor blockers such as propranalol and practalol can cause psoriasis-like skin lesions. In this study, the relationship between the 24-hour urinary excretion of adrenaline, the chief catecholamine activator of adenyl cyclase and the disease severity (represented by % skin involvement) has been examined in a group of normotensive psoriatic patients. Similarly, 24-hour urinary excretion of nor-adrenaline and dopamine (precursors in the synthesis of adrenaline), serum levels and 24-hour excretion of magnesium (an activator of adenyl cyclase) and of zinc and calcium (both inhibitors of adenyl cyclase) have been correlated with the severity of the disease. The 24-hour urinary excretion of the catecholamines were measured in 39 psoriatic patients and compared with the results obtained from 97 healthy volunteers from a previously published study using a similar technique. The psoriatic patients showed significantly lower adrenaline levels and significantly higher nor-adrenaline and dopamine levels. There was a significant correlation between adrenaline excretion and percentage skin involvement. These findings further support the theory of cyclic nucleotide axis involvement in the aetiology of psoriasis.

K Pavithran

Beneficial effect of corticosteroid therapy in Microsporum canis kerion, Keipert JA : Aust J Dermatol, 1984; 25 : 127-130.

Oral corticosteroid therapy was found to be highly beneficial in the treatment of kerion. There was rapid recovery of the signs and symptoms after corticosteroid therapy in 3 children who had kerion due to *Microsporum canis*. In kerion the dermatophyte can invade the dermis and cause suppurative inflammation. The intense inflammatory response seen in kerion is a hypersensitivity reaction usually of type IV (delayed). This intense inflammation in kerion may result in scarring. Systemic corticosteroid therapy suppresses this inflammation, resulting in rapid healing of the lesion with minimal or no scarring.

K Pavithran

Hair growth benefits from dietary cystine-gelatin supplementation, James MB : J Appl Cosmetol, 1984; 2 : 15-27.

Work done in the past 20 years has shown that dietary supplementation with gelatin and/or sulfurated aminoacids such as l-cystine produces a substantial increase in the relative content of high sulphur proteins in the hair of experimental animals and humans. Some studies indicate that sheep exhibit increased hair-shaft diameters or hair growth resulting from these aminoacid changes. In order to evaluate such growth changes in humans, a controlled clinical study was devised, based upon recent work which has confirmed the benefits of l-cystine and gelatin diet supplementation. Preliminary data from this study in 16 patients indicates that such dietary supplementation does increase hair-shaft diameter and growth density in selected human alopecias which include telogen effluvium, male pattern alopecia in females and alopecia due to hypothyroidism. The data has not been analysed according to age, sex, race or specific diagnosis. The authors advocate a six-month clinical trial with this safe therapy in cases of telogen effluvium.

A S Kumar

A new topical antifungal drug : Tioconazole, Vander Ploeg DE and De Villez R : Intern J Dermatol, 1984; 23 : 681-683.

The efficacy of tioconazole, a new imidazole derivative as 1% cream was compared with 2% miconazole cream in superficial fungal infections. Thirty eight patients were given tioconazole and 39 patients miconazole. All the patients were assessed every week by KOH and at the end of every 2 weeks by culture, taken from three different parts of the involved area. At the end of four weeks, 91.4% tioconazole group and 85.3% of miconazole group were mycologically cured. The rest were improved. The patients were encouraged to continue treatment for another four weeks. At the end of eight weeks, 93.5% of tioconazole group and 89.3% of miconazole group were cured. Others had either reinfection or a relapse. Clinical evaluation showed no significant difference, both the drugs were equally and highly effective. There had been a suggestion that tioconazole might be slightly more effective in hand infections despite its initial slow response.

K Seetharam

Crotamiton lotion in pruritus, Smith EB, Kingh CA and Baker MD : Intern J Dermatol, 1984; 23 : 684-685.

The authors attempted to determine the antipruritic effect of 10% crotamiton lotion in 31 patients having pruritic skin conditions with bilaterally symmetrical lesions (insect bites 22 and atopic dermatitis 9). The patients were given two lotions, one containing 10% crotamiton in a suitable vehicle and the other only the vehicle, and were instructed to use one on each side of the body four times daily. The vehicle consisted of mineral oil, propylene glycol, cetearyl alcohol, cetyl alcohol, carbomer 941, citric acid, water and a fragrance. The patients were evaluated at 3 to 4 day intervals for 14 days, both subjectively and objectively.

All the 31 patients experienced some relief from both 10% crotamiton and its vehicle. When asked to express a preference for one agent, 16 preferred crotamiton lotion and 13 preferred the vehicle, while 2 found no difference. There was no difference in the objective analysis. The authors stated that crotamiton itself had little, if any, effect on pruritus and any antipruritic effects are probably due to the vehicle and to the elimination of parasites in those patients who had scabies or pediculosis.

K Seetharam

Anaphylactoid reaction to corticosteroid : case report and review of literature, Peller JS and Bardana EJ Jr : Ann Allergy, 1985; 54 : 302-305.

A 59-year-old woman with renal failure secondary to chronic glomerulonephritis was given 100 mg of intravenous hydrocortisone. While the hydrocortisone was flowing, the patient began sneezing and developed nasal congestion with rhinorrhoea. Within a few minutes, she developed urticarial lesions over the face associated with periorbital angioedema, generalised pruritus and a thick tongue. There was no bronchospasm and no change in blood pressure. The urticaria and angioedema responded to hydroxyzine within 5 hours. A review of the literature revealed that 35 patients have so far been reported to have anaphylaxis-like reactions following exposure to hydrocortisone in topical and parenteral preparations.

K Seetharam

Thyroid abnormalities in dermatitis herpetiformis : Prevalence of clinical thyroid disease and thyroid autoantibodies, Cunningham MJ and Zone JJ : Ann Int Med, 1985; 102 : 194-196.

Fifty patients (27 men and 23 women) with dermatitis herpetiformis were evaluated for thyroid abnormalities by clinical examination, thyroid function tests and estimation of thyroid microsomal antibody levels. Seventeen (34%) of the 50 patients had clinical or chemical evidence of thyroid disease. Two patients had a history of hyperthyroidism, 5 patients had hypothyroidism, 3 patients had thyroidectomies for nodules, 5 had asymptomatic goiter and two were clinically euthyroid with increased thyrotropin and decreased thyroxine levels. Nineteen (38%) patients showed thyroid microsomal antibodies. Out of these, 10 had thyroid abnormalities and 9 had no thyroid abnormalities. Presence of clinical and/or serological thyroid abnormalities in 26 of the 50 patients showed a significant association between dermatitis herpetiformis and thyroid disease.

K Seetharam

Dapsone induced peripheral neuropathy, Waldinger TP, Siedle RJ, Weber E et al : Arch Dermatol, 1984; 120 : 356-357.

A severe motor-sensory neuropathy developed in a man being treated with dapsone for dermatitis herpetiformis. He was on dapsone for 16 years before the signs of neurotoxicity appeared. Electrodiagnostic and clinical features were consistent with an axonal neuropathy. Clinical characteristics of dapsone neuropathy include, a motor neuropathy affecting the extremities, usual onset within five years after the initiation of dapsone therapy, dapsone dosage usually equal to or more than 300 mg/day, and almost always complete recovery from the neuropathy after the reduction of dapsone dosage or withdrawal. The patient was found to be a slow acetylator. This case is noteworthy for the length of time of dapsone usage and the low daily dosage (100 mg) of dapsone taken prior to the development of neuropathy.

A S Kumar

Lumbar puncture in asymptomatic neurosyphilis (Editorial), Felmam YM : Arch Int Med, 1985; 145 : 422-423.

Neurosyphilis occurs in about 10% of untreated patients with syphilis, 5 to 35 years after the onset of their infection. The diagnosis of neurosyphilis has become difficult to establish in the penicillin era, because cases are diminishing in number and their mode of presentation is increasingly atypical. Symptomatic neurosyphilis exhibits neurologic and psychiatric disturbances alnog with various CSF abnormalities such as pleocytosis, elevated protein concentration, and/or reactive VDRL. The diagnosis of asymptomatic neurosyphilis on the other hand, is made in the absence of clinical symptoms or signs of disturbances in the CNS, providing CSF abnormalities are present. A positive reagin test on the CSF will not however distinguish between past untreated or adequately treated infection, and present infection.

In late latent syphilis, careful neurologic and psychiatric examination of the patient to rule out symptomatic neurosyphilis; followed by treatment as if asymptomatic neurosyphilis was present, is current clinical practice in lieu of lumbar puncture. Since adequate treatment offers excellent prognosis with reversion of CSF abnormalities, the value of lumbar puncture in the management of asymptomatic neurosyphilis should be evaluated.

Although the specificity of CSF reagin tests is high, false positive reactions may occur. A patient with syphilis and non-syphilitic meningitis may have positive CSF findings due to passage of reagin from the blood stream through the choroid plexuses. Tuberculous meingitis, benign lymphocytic meningitis, meningococcal meningitis, sub-arachnoid haemorrhage, cerebral malaria, cerebral neoplasms and medullary tumours may cause false positive CSF findings. Blood contamination of a CSF specimen may also account for a false positive CSF serologic reaction.

As the CSF reagin test is insensitive, false non-reactive reagin tests may occur in patients with neurosyphilis. All too often, CSF serologic tests are performed routinely without neurologic or psychiatric signs and symptoms and without realising the risk of lumbar puncture.

In one study of 33 patients suspected of having neurosyphilis, only one with symptomatic neurosyphilis had a reactive CSF, VDRL test. In a recently published study (1985) the authors using a decision-analysis model concluded that a lumbar puncture offers little additional benefit and may increase morbidity in patients with symptomatic late syphilis. It is time that the value of lumbar puncture in the management of asymptomatic neurosyphilis is reevaluated.

Bhushan Kumar

Diagnosis of liver involvement in early syphilis-a critical review, Veeravahu M : Arch Int Med, 1985 ; 145 : 132-134.

Warthin demonstrated spirochetes in human liver tissue as far back as 1918. Hahn in 1943 reviewed 38,825 cases of secondary syphilis and found only 7 acceptable cases with concomitant involvement. Still the diagnosis of liver involvement in early syphilis has always posed a problem because of its rarity and the difficulty of excluding coincidental liver disease caused by a multitude of pathogens. Case reports deal predominantly with jaundiced homosexual men in whom syphilis is discovered later, and the prospective studies of patients with early syphilis disclose only mild biochemical abnormalities in liver function test results. The raised enzymes in these patients may have been due to ulcerative proctitis, diarrhoea, copious intake of alcohol and arsenotherapy. There is no single characteristic feature attributable to early syphilitic hepatitis. Even liver histopathologic findings have varied from focal necrotic changes, interaciner granulomatous lesions, cholestatic changes, to diffuse granulomatous changes with areas of necrosis. At least in those patients who have jaundice, there is a likelihood of coincidental viral hepatitis. Therefore, the evidence to implicate *Treponema pallidum* as a liver pathogen in early syphilis is not convincing.

Bhushan Kumar