ABSTRACTS FROM CURRENT LITERATURE

Tinea capitis—clinico-etiologic correlation, Sehgal VN, Saxena AK and Sudershan Kumari: Intern J Dermatol, 1985; 24 : 116-119.

Fifty KOH positive subjects of tinea capitis were studied from the morpho-aetiologic point of view. It was found to affect predominently school-going children of low socio-economic, status. The clinical variants were grouped into non-inflammatory types—grey patch, black dot, seborrhoeic, and inflammatory types—kerion and pustular inflammatory. Scrapings from these lesions were cultured in the first instance on Sabouraud's dextrose agar medium containing cycloheximide. Those cultures which were either sterile or contaminated, were cultured again on media for a second or third time. In all, 37 cultures were positive for dermatophytes. The various dermatophytes isolated in order of frequency were *Trichophyton violaceum*, *Trichophyton rubrum*, *Trichophyton mentagrophyte* and *Trichophyton verrucosum*. *Trichophyton violaceum* was responsible for a large majority of cases. A correlation between the clinical variants and the types of fungus isolated was also done.

Govind Srivastava

A new topical antifungal drug : Tioconazole, Ploeg DEV and Villez RLD : Intern J Dermatol, 1984; 23 : 681-683.

Following 4 weeks of treatment, 32 (91.4%) of 35 tioconazole treated patients and 29 (85.3%) of 34 miconazole treated patients achieved clinical and mycologic cure. At follow up, four weeks after completion of treatment, 29 (89.3%) of 31 tioconazole treated patients remained cured. There was no significant difference in the clinical, mycologic or clinical plus mycologic response to the two medications. Tioconazole is a new imidazole derivative. Side effects observed with the drug included transient burning sensation, and skin rashes which disappeared even on continuation of therapy.

N L Sharma

Drug eruptions : Causative agents and clinical types, A series of in-patients during a 10-year period, Kauppinen K and Stubb S : Acta Dermato-Venereologica, 1984; 64 : 320-324.

A series of 446 in-patients with drug eruption were studied to determine the causative agent and the clinical type. In over a half of the cases, a provocation test confirmed the drug responsible for the reaction. Sulphonamides/trimethoprim and ampicillin/penicillin, followed by phenazones were the most frequent agents causing eruptions. Sulphonamides were also the most common drugs inducing Lyell's and Stevens-Johnson syndromes. Phenazones and barbiturates were the main causes of fixed eruptions. The frequency of in-patients having drug eruption was decreased in 1971-80 series compared to the earlier ones from 1961-70. Also, the frequency of Lyell's and Stevens-Johnson syndromes was lower in the latter decade than in the earlier one.

Bhushan Kumar

Langerhan's cell and vitiligo : Quantitative study of T6 and HLA-DR antigen expressing cells, Claudy AL and Rouchouse B : Acta Dermato-Venereologica, 1984; 64 : 334-336.

Epidermal Langerhan's cell (LC) densities in vitiliginous skin (VS) and normal appearing skin (NAS) were studied in 10 patients with common vitiligo. Monoclonal anti-human T6 antigen IgG1 and Ia antigen IgG2 were used to characterise LCs. Epidermal LC densities were

calculated by means of an ocular grid. The results showed that LC densitites of VS were similar to that of NAS. No differences were noted in terms of age, sex, progressing, stable or repigmenting vitiligo. The authors concluded that involvement of LC in vitiligo if any, does not probably occur via a degenerating mechanism or via variations in regional densities.

Bhushan Kumar

Scanning electron microscopy of the scabies burrow and its contents, with special reference to the *Sarcoptes scabiei* egg, Shelly WB and Shelly ED : J Amer Acad Dermatol, 1983; 9 : 673-679.

An entire burrow of a female *Acarus scabiei* was examined by scanning electron microscopy during serial transeverse sectioning. The roof and walls of the burrow were composed of compacted corneocytes. The floor was smooth except at the anterior end where it was made up of nucleated stratum granulosum cells. It was etched in appearance presumably having been chewed by the mite. Surface of the egg-shell had a distinctive geometric patterning. This shell is the chorion which is composed of an outer layer of minute, closely packed penta and hexahedrons resting on a thin inner homogenous layer. The polyhedric surface pattern was exactly replicated in the cement substance which attached the eggs to the burrow floor. Observations were made on the embryonic positioning which permitted the larvae to emerge from the egg-shells in a uniform manner. The ventral view of the head of the mite showed bright, J-shaped hairs on either side of a tongue-shaped upper lip which meets a slightly protruding lower lip in the form of a groove. The 'bull' neck with its fimbriae blends into the thorax. Across the 'forehead' were barely discernible mandibles with serrated medial surfaces. There were no eyes. Plicated anogenital area of the mite showed para-anal bristles that extended from mouth-like protuberances. Both genital and anal orifices apparently share their common external opening. Mid-section of the ventral surface of the female mite shows transverse linear openings i.e. tocostoma which are ridged, plated and hirsute. The lips of the tocostoma open and widen as an egg is extruded from here once or twice each day.

K Pavitharan

Retinoid therapy is associated with excess granulation tissue response, Campbell JP, Grekin RC, Ellis CN et al : J Amer Acad Dermatol, 1983; 9 : 708-713.

Excess granulation tissue as a complication of retinoid therapy is reported in patients with acne and psoriasis. Isotretinoin was given to cystic acne patients and etretinate to psoriatics. The granulation tissue response was seen in resolving acne lesions, and in psoriatics adjascent to the nail plates. This response appears to be idiosyncratic and unrelated to either the daily dose of the retinoid or the total cumulative dose. Biopsy revealed typical granulation tissue comprising of capillaries and a mononuclear cell infiltrate with scattered myofibroblasts. Distinction between granulation tissue and a pyogenic granuloma may be subtle, both clinically and histopathologically.

K Pavithran

Multiple keratoacanthomas possibly induced by psoralens and UVA photochemotherapy, Sina B, Adrian RM and Baltimore : J Amer Acad Dermatol, 1983; 9 : 686-688.

Development of multiple keratoacanthomas in 2 patients who had received excessive doses of PUVA is reported. PUVA toxicity might have been a stimulus to provoke these multiple tumours. The patient had previously received grenz ray therapy, UVB exposures and methotrexate. All these agents might have played their role in the development of keratoacanthomas. Since it is an isolated report at present, a firm hypothesis regarding their occurrence or patho-

genesis cannot be given. Further reports of a similar nature may shed light on this clinical observation.

K Pavithran

Infantile acropustulosis, Jennings JL and Burrow WM : J Amer Acad Dermatol, 1983; 9 : 733-738.

Infantile acropustulosis (IA) is a benign dermatosis that affects infants. It was first reported by Jarret and Ramsdell in July 1979. Four cases characterized by recurrent crops of 1-2 mm intensely pruritic vesiculo-pustules found primarily on the distal parts of extremities are reported. It responds to sulphones and not to other drugs. It may resolve spontaneously at about 2 years of age. It starts as intensely pruritic 1-2 mm papulo-vesicles which progress to pustules within 24 hours, and occurs predominently on the plams and soles and on the dorsa of the hands and feet with a fewer lesions on the ankles, wrists, scalp and buttocks. Initially, the eruption lasts for 7-14 days, only to recur in 2-4 weeks. As the infant becomes older, lesions resolve more quickly (4-7 days) and remit for a longer period (4-8 weeks). Histopathology shows a well-circumscribed subcorneal or intraepidermal pustule filled with polymorphonuclear leukocytes. The papillary dermis shows a sparse perivascular lymphohistiocytic infiltration with a few polymorphonuclear leucocytes and occasional eosinophils.

K Pavithran

Congenital subungual nevus, Coskey RJ, Magnell T D and Bernacki Jr EG : J Amer Acad Dermatol, 1983; 9 : 747-751.

A 4-month-old infant presented with congenital darkly pigmented macules involving the subungual and periungual areas of the right ring finger. Histopathology of the lesion revealed features of a compound nevus. Most cases of nail pigmentation are acquired. Some of the other causes of nail pigmentation of nail bed include Addison's disease, malnutrition, Peutz-Jeghers syndrome, photochemotherapy, drug therapy with melphelan, cyclophosphamide as well as other cytotoxic drugs, silver, antimalarials, phenolphthalein and mercury. In addition, there are other causes that are idiopathic such as Laugier-Hunzieker syndrome in which the patient may have pigmented spots on the lips and in the nails. Nevi in subungual region are rare in Caucasians at any age and should be excised to rule out malignant melanoma.

K Pavithran

Treatment of rosacea with 1% metronidazole cream. A double-blind study, Brit J Dermatol, 1983; 108 : 327-332.

Eighty one patients with rosacea were treated with either 1% metronidazole cream or the cream base as a placebo for two months. The trial was performed double-blind, and the patients were assessed once a month. The variates studied were : (1) overall clinical assessment, (2) lesion counts, (3) degree of erythema, (4) independent photographic evaluation, and (5) patient's opinion.

Four patients dropped out of the trial (one treated with metronidazole, three with placebo). In all the variates, 1% metronidazole cream proved to be significantly more effective than placebo and the results were comparable to orally administered metronidazole and tetracyclines.

There is no known explanation for the effect of metronidazole on rosacea. The effect may relate to suppression of cell-mediated immunity.

N L Sharma

A clinical profile of donovanosis in a non-endemic area, Sehgal VN and Shyam Prasad AL: Dermatologica, 1984; 168 : 273-278.

The diagnosis of donovanosis is seldom made in a non-endemic region, because it is usually overlooked as an aetiologic diagnosis of genital

ulcers. Clinical suspicion is a yard-stick in its diagnosis and has been illustrated in the present study. Its frequency was found to be 3.14 percent of all sexually transmitted diseases. Unmarried males of vulnerable sexual age were commonly affected. They came from a low socio-economic strata. The incubation period and duration of the disease were variable. The genitalia were primarily affected. The ulcero-granulomatous variety was seen commonly, though unusual expression of the disease was also recorded. The importance of repeated tissue smears and/or histopathology in certain clinical variants is emphasised.

Govind Srivastava

Histopathological diagnosis of donovanosis, Sehgal VN, Shyam Prasad AL and Beohar PC: Brit J Vener Dis, 1984; 60 : 45-47.

The role of histopathology in the diagnosis of donovanosis was assessed in 42 patients who had positive tissue smears for Donovan bodies or had lesions clinically suggestive of the disease. Haematoxylin-eosin stained and Giemsa stained sections were examined for each patient. Forty sections revealed the presence of intracellular and extracellular Donovan bodies; these were of varying morphology—coccoid, coccobacillary, and bacillary. Mature forms surrounded by a capsule were also seen. They were easily identified and located in Giemsa stained sections. Dermal changes consisted of a massive cellular infiltrate formed largely by plasma and mononuclear cells, scant lymphocytes, and a diffuse sprinkling along with focal collections of neutrophils. Dilatation or proliferation of dermal blood vessels was also seen. Epidermal changes were in the form of ulceration and acanthosis. Pseudoepitheliomatous hyperplasia and neutrophilic microabscesses were occasional features. The distinctive histopathological picture suggests that biopsy of doubtful as well as early lesions would be a distinctive aid in the diagnosis of donovanosis.

Govind Srivastava

A clinical variant of chancroid resembling granuloma inguinale, Werman BS, Herskowitz LJ, Olansky S et al : Arch Dermatol, 1983; 119 : 890.

Sixteen patients with non-syphilitic genital ulcerations had the clinical features of granuloma inguinale. Biopsy specimens and Wright's stained tissue crush preparations obtained from all patients failed to demonstrate Donovan bodies. Herpes simplex virus was absent in cultures obtained from 11 patients. *Hemophilus ducreyi* was obtained in seven of the eight patients in whom culture was done. The pathologic process, therefore, represents a variant of chancroid having the clinical features of granuloma inguinale. It is unclear why *H. ducreyi* produced lesions with the clinical appearance of granuloma inguinale. Histopathologically also, this correlated with the presence of vascular preparations and intense inflammation.

N L Sharma

Chancroid or chancroidal ulcers, Sehgal VN and Shyam Prasad AL: Dermatologica; 1985; 170 136-141.

1532 cases with genital ulcers were investigated, of whom 610 presented with features suggestive of chancroid; classic, multiple lesions of chancroid were observed in 312, while its other variants, i.e. dwarf, giant and phagedenic chancroid were also seen. In addition, 162 cases had a morphology characterized by a single ulcer which was well-defined, soft, tender, non-indurated and had weakening edges. These were termed chancroidal ulcers. The latter had a longer incubation period of 8-11 days. Absence of lymphadenopathy was prominent in these cases. The male-female ratio was 27/1. Persons of low socio-economic status in sexually vulnerable age group were predominently affected. The prepuce, coronal sulcus and glans penis were the common sites of affliction in males, while the labia minora was frequently involved in females Due to the limited value of Gram stained smears for the

detection of *H. ducreyi* and lack of good culture media, chancroid and chancroidal ulcers should be differentiated clinically.

Govind Srivastava

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

A 24-year-old male having clinical features of borderline lepromatous leprosy was treated with rifampicin 600 mg daily, dapsone 100 mg daily and clofazimine 100 mg daily. In 4 months' time, he developed a reversal reaction and upgraded to the borderline tuberculoid type, but he had neuritis and mild muscle paresis. Increasing the dose of clofazimine to 400mg daily and the addition of prednisolone 1 mg/kg body weight did not produce significant improvement. He was then given five plasma exchanges and there was marked improvement within 3-4 days. Three weeks later, he had another reaction, and was treated similarly with a similar response. It has been conjectured that the beneficial effect of plasma exchange could be due to removal of a factor which augments the lymphocytic response to mitogens.

Vijay Battu

Relation between anti-*Mycobacterium leprae* antibody activity and clinical features in borderline tuberculoid (BT) leprosy, Touw Laggendijk EJM, van Diepen TW, Harboe M et al : Intern J Leprosy, 1983; 51 : 305-311.

Antibody activity against *M. leprae* antigens including antigen 7 was measured by radio-immuno-assay in 40 patients with freshly diagnosed borderline tuberculoid leprosy and 37 patients of borderline tuberculoid leprosy with clinically suspected dapsone resistance. Both groups showed a wide variation in the antibody activity in individual patients. The reasons for the variation in antibody activity within each group are yet unclear. Still, the median activity in the newly diagnosed group was less than that in the group with suspected dapsone resistance. In the latter group, high antibody activity was found to co-relate with the active skin lesions, new skin lesions and neuritis. The authors suggest that these values of antibody activity reflect the total bacillary load in a patient.

M Ramam

Effect of treatment on antibody activity against *Mycobacterium leprae* antigen 7 in tuberculoid leprosy, Dahle JS, van Diepen TW, Touw Langendijk EJM et al - Intern J Leprosy, 1983; 51 : 312-320.

Antibody activity against *M. leprae* antigen 7 was monitored by radio-immuno-assay in 8 patients of borderline tuberculoid leprosy who were put on treatment. There were two groups of patients, (1) freshly diagnosed cases (9 patients),(2) cases in whom dapsone resistance was suspected (12 patients). Most of the patients responding to therapy showed a decrease in antibody activity. Some patients showed signs of inflammation in their skin lesions soon after being put on therapy. These patients showed an increase in the antibody activity during the phase of inflammation, followed in all cases by clinical improvement and a decrease in antibody activity. The authors suggest that an initial increase in antibody activity after onset of therapy is a good prognostic indicator for eventual cure.

M Ramam