

ABSTRACTS FROM CURRENT LITERATURE

Influence of cardiolipin antibodies on the binding of treponemal specific antibodies in the fluorescent treponemal antibody absorption test and *Treponema pallidum* immobilisation test. Borkhart H L, Zielinski S J. *Med Microbiol* 1997;49 : 965 - 972.

Following infection with *Treponema pallidum*, cardiolipin antibodies are detectable 1-2 weeks after the appearance of primary chancre and their titre depends on the activity of disease. Treponemal specific antibodies on the otherhand persist for years. The VDRL test is used routinely to determine cardiolipin antibodies. The cardiolipin antibodies are associated with pathogenicity of treponemes. The purpose of this study was to analyse the possible role of cardiolipin antibodies in the survival of treponemes in the infected host. Special emphasis was focussed on the influence of cardiolipin antibodies on the binding of treponemal specific antibodies in *T. pallidum* immobilisation (TPI) test and FTA - ABS test. The avidity of cardiolipin antibodies from rabbits are detected by a modified cardiolipin ELISA. The avidity to treponemal specific 1gM and 1gG were detected. The treponemal specific 1gG from rabbit showed maturation of avidity. But this was not observed in human sera. VDRL hyperimmune sera and isolated cardiolipin 1gM exerted an inhibitory effect against human treponemal specific antibodies in 1 gG -FTA-ABS test and 195 1gM FTA-

ABS test. Cardiolipin 1gM failed to produce such an effect. Both simultaneous and sequential incubation of cardiolipin antibodies in human sera in TPI test showed a similar effect. The results show that cardiolipin antibody target structure is situated, on the surface of treponema and these antibodies are unable to cause destruction of *Treponema pallidum*. The inhibition of treponemal specific antibodies by cardiolipin antibodies as shown in TPI test and FTA test could be a pathogenic factor in the course of syphilis. At high titre of cardiolipin antibodies in the early stage of infection, the inhibition effect of cardiolipin antibodies may help the progression of disease. At later stages this effect becomes negligible. Therefore presentation of cardiolipin antigens should be considered as a possible virulence factor of pathogenic treponemes mediating the obstruction of host defence mechanisms.

Shailaja T V

Balneophototherapy in small plaque parapsoriasis-four case reports. Gambichler T, Manke - Heiman A. *J Eur Acad Dermatol Venereol* 1998; 10 :176 - 181.

Parapsoriasis en plaque is a chronic skin disease of unknown aetiology. Currently the most established therapy in cases of small plaque parapsoriasis is treatment with salt water baths and

uv radiation. The patients generally had long standing disease and no treatment was carried out six months prior to balneotherapy except topical corticosteroids. The patients were treated for 4 weeks with a 3% concentration of 30 minute salt water baths five times per week. This was followed by phototherapy. The cumulative UV exposure ranged from 81 to 140 J/cm² (UVA) and 3.6 to 5.8 J/cm² (UVB). In all the cases balneotherapy proved to be effective and well tolerated. There was clinical clearing of more than 90% of lesions with a duration of total clinical response between 8 and 12 weeks without further maintenance treatment. The action mode of balneophototherapy in parapsoriasis could be an immunomodulatory or immunosuppressive influence by radiation of lymphocytes and Langerhans cells. An optimisation of phototherapy after salt water baths is presumed to be due to improvement of the optical transparency of the epidermis and photosensitisation and also by decreasing cumulative uv dose and decreasing treatment period.

Bindu V

Zinc status in HIV infected patients : Relation to the presence or absence of seborrhoeic dermatitis. Basset N, Sotto A, Guillot B, et al. J Am Acad Dermatol 1998; 38: 276-278.

The incidence of seborrhoeic dermatitis is increased in HIV infected patients. Immunosuppression by zinc deficiency in human beings has been reported. The authors studied the zinc status of patients with or without seborrhoeic dermatitis and HIV infection to determine whether a correlation exists between the presence of seborrhoeic dermatitis and decreased plasma

zinc level. Seventy-four patients were divided into four groups - HIV infected patients with and without seborrhoeic dermatitis; HIV negative patients with seborrhoeic dermatitis and healthy control group. For plasma zinc determination, samples were collected and plasma zinc levels were measured by flame atomic absorption spectrophotometry. A significant decrease in plasma zinc levels was observed in all HIV infected patients whether or not they had seborrhoeic dermatitis. Correlation between plasma zinc level and both individual CD₄ counts and CDC classification were not significant. Similarly no correlation between individual CD₄ counts and seborrhoeic dermatitis score was found. It also showed that seborrhoeic dermatitis is very similar in HIV positive and negative patients in terms of age at onset, severity, localisation and number of relapses.

Jyothy K

Atypical forms of herpes simplex - associated erythema multiforme. Weston LW, Brice LS, J Am Acad Dermatol 1998; 39: 124 - 126.

Erythema multiforme is a recurrent condition, characterised by the abrupt appearance of self-limited, symmetrically distributed red papules, some of which evolve into target lesions. Recently it was found that in majority of cases in children and adults, erythema multiforme is precipitated by herpes simplex virus. This type of EM is also known as herpes associated EM (HAEM) and herpes simplex virus has been demonstrated in the involved skin of HAEM. The authors describe four patients with atypical presentations of HAEM. Following clinically evident herpes labialis infection, all the four patients

experienced a cutaneous eruption of red papules and plaques, some of which evolved into target lesions. Histopathology was consistent with EM and PCR analysis of the involved tissue was positive for HSV DNA. In all three patients the lesions were unilateral or segmental. One patient had a single lesion, one had unusually large plaques. One had asymmetric target lesions and deep erythema multiforme like lesions simultaneously. Of the four, three were treated with systemic corticosteroids. It is uncertain whether this influenced the appearance of the lesions and contributed to the atypical nature of the episodes. They had no recurrence of either herpes labialis or EM following chronic suppressive doses of acyclovir. The fourth patient who had excision of the single EM lesion continues to have herpes labialis, but with no recurrence of erythema multiforme. Even after the subsidence of HAEM lesion, HSV DNA persists in the skin and this persistence is responsible for occurrence of EM lesions in the same cutaneous sites in subsequent episodes. Though many conditions may involve the production of target like lesions and mimic EM, a diagnosis of atypical HAEM should be made only after a skin biopsy specimen had excluded other conditions and if there is direct evidence of HSV within the lesions.

Bindu T R

Anaerobic bacteria in men with urethritis Mazuecos J, Agnar J, Rodriguez Pichardo A, et al. J Eur Acad Dermatol Venereol, 1998 ;10: 235-241.

The normal male urethra predominantly has a mixture of both aerobic and anaerobic micro organisms. Aerobes include staphylococci, diphtheroids and streptococci. Anaerobes include peptostreptococci, bifidobacterium, veillonella, prevotella, porphyromonas and bacteroides. Out of 110 patients selected for the study, 75 were urethritis cases and 35 were controls. Those who had taken antibiotics within the previous one month were excluded from the study. Four urethral swabs were taken from each patient. 1) For staining for gonococci (2) culture of Chlamydia trachomatis. (3) Isolation of Ureaplasma urealyticum. (4) Anaerobic bacteria. Out of 75 patients, 17 had gonococcal urethritis, 15-chlamydial urethritis, 18 -Ureaplasma urealyticum, 2- Trichomonas vaginalis, 22 -no pathogen identified. Patients with NGU showed very high incidence of gram negative anaerobic bacterial over growth like P. prevotti, P. tetradius, P. saccharolyticum and B urealyticum. The findings do not indicate an etiological relationship but points to the potential diversity of causes, interactions and effects of urethritis.

Latheef E N