CUTANEOUS MANIFESTATIONS OF AIDS

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M. Jafferany, T.S. Haroon (Department of Dermatology, Jinnah Postgraduate Medical Centre, Karachi.)

Acquired immunodeficiency syndrome is a new addition in human ailments, has recently attracted great interest and research. It was Lust reported in U.S.A in summer 1981. It has been defined as 1-cell immunodeficiency in a previously healthy adult in association with opportunistic infections and/or Kaposi's sarcoma. The term AIDS-related complex indicates the less severe form of disease. It is a constellation of nonspecific signs and symptoms, such as chronic diarrhoea, weight loss and fever in high risk group patients in the absence of typical opportunistic infections and neoplastic processes.[1]
The aetiologic agent in AIDS has not yet been positively identified with certainty. Retrovirus is considered to be the most likely agent.[2] The four identical retroviruses incriminated are HTLV-III(Human 1-cell lymphotropic virus), LAY (Lymphadenopathy associated virus), ARY (AIDS-related virus) and HIY (Human immunodeficiency virus).
The individuals at increased risk include homosexuals, hetrosexuals with multiple partners, intravenous drug abusers, haemophilics, persons with multiple blood transfusions, individuals of Haitian origin, foetuses of infected mothers and recipients of artificial insemination from exposed donors. AIDS cannot be transmitted by casual social contact, food or air-borne route.
Clinical features result from damaged immune system attacked by retrovirus. This virus selectively eliminates T4 subset of 1-lymphocyte thus giving way to opportunistic infections, malignancies and other features of immunodeficiency. There is generalized lymphadenopathy in 10-1 5% of cases. Chronic diarrhoea, oral thrush and pharyngitis is common. Retinal periphlebitis and haemorrhages are observed in eyes. Non-productive cough and dyspnoea at rest with diffuse arthralgia and myalgia is usually present in early stages. Pyrexia of unknown origin followed by opportunistic infections is common. Neurologic symptoms like dementia, dyskinesia, neuropathies, vacuolar myelopathy, depression, diminished libido, impotence and even meningitis and encephalitis is reported.
Dermatologic symptoms are secondary to severe T.cell deficiency and the presence of opportunistic infections. Kaplan et al have shown that most of the cutaneous disorders appear when 1-helper cell number falls below 100 cells/cmm. [2] The skin manifestations can be summarized under following headings:
NEOPLASTIC: They include Kaposi's sarcoma lymphomas, thalignant melanoma, squamous and basal cell carcinomas.[1,3] Lesions of Kaposi's sarcoma may look like reddish blue or brownish mactiles, papules, small plaques or smooth tumours. They occur anywhere on skin. Any red or hyperpigmented macWe, papule or plaque seen in a susceptible person should be considered as Kaposi's sarcoma unless proved otherwise. The oral and anorectal squamous cell carcinoma has been mentioned in association with AIDS. Several types of lymphomas like Hodgkin's, Burkitt's lymphoma and non-Burkitt's types have been reported.
INFECTIONS: This group includes a broad spectrum of infections to which AIDS patients are susceptible. Herpes simplex infections usually present as persistent erosions or ulcerations as opposed to the classical vesicular lesions seen in non-immunosuppressed patients.[2] Recurrent herpes is often quite severe and disfiguring. Other viral infections are herpes zoster, common warts which may be pigmented and haemorrhagic, molluscum contagiosum and oral hairy leukoplakia[4-6]. Epstein-Barr virus presents a unique problem in these patients because EBY-positive lymphocytes can support the growth of HTLY-III virus, thus acting as a co-factor enhancing the growth capabilities of this virus. [2]
Among the fungal infections, oral candidiasis is the most common lesion[2] Lips, cheeks, tongue, throat, vagina, nails and napkin area and trunk in children are commonly involved. Tinea versicolor, tinea

cruris and Trichophyton rubrum infections have been reported frequently. Cryptococcosis, histoplasmosis, sporotrichosis and scopulariopsis are also not uncommon. [2,4]

Bacterial infections are very common in AIDS patients particularly in intravenous drugabusers. Staphylococcus aureus, streptococci group A,C & G, pseudomonas, haemophilus influenzae and rhodococcus equi are commonly incriminated.[2,4] Syphilis has been frequently noticed particularly in homosexuals. [2]

Mycobacterial infections with M. avium, intracellulare scrofulacrum & M. marinum, pneumocystis carinii infections, toxoplasmosis, amoebiasis and scabies have also been mentioned in AIDS patients.[1,2,4]

VASCULAR DISORDERS: Multiple cutaneous angiomas, fever, liver abnormalities, splinter haemorrhages under nails, telangiectasia, thrombocytopenic purpura and vasculitis have been reported in association with AIDS patients. [1,2,4] Some patients develop an unusual manifestation of hyperalgesic pseudothrombophlebitis of lower extremity.[1] The overlying skin is tender and erythemato us.

HYPERPROLIFERATIVE DISORDERS: Seborrhoeic dermatitis often presents acutely and severely in AIDS patients[7] It's severity may have prognostic significance and it may be the initial or late manifestation of the disease[2,7] Xerotic skin changes, acquired ichthyosis, erythroderma, pityriasis rosea like eruption and psoriasis have been reported in patients with AIDS[1,2] The common underlying pathophysiology in these disorders seem to be epidermal keratinocyte stimulation, perhaps by HTLV-IH virus or by lymphokines released by monocytes or T.cells infected by this virus[2].

ALLERGIC DISORDERS: High incidence of hypersensitivity eruptions to suipha therapy for the treatment of p. carinii infections is observed in these patients[1,2,8] Recurring urticaria as an early manifestation Of HTLV-III infections has been reported in a few patients.[2]

NUTRITIONAL MANIFESTATIONS: Nutritional deficiencies are not uncommon in children with AIDS. Fofficular petichial eruption on legs and bleeding gums compatible with scurvy have been reported. Verrucous hyperpigmented lesions on legs also occur which on biopsy show pellegra and acrodermatitis enteropathica-like changes[4]. A characteristic skin coloured discrete pruritic papular eruption on head, neck and upper trunk[1,9] and severe aphthae have been described in these patients[1,4]

MISCELLANEOUS LESIONS: Few patients have shown asteatotic eczema and granuloma annulare -like lesions during the course of HTLV-III infection[1,4]. Various nail deformities including yellow discoloration of distal portion, transverse and longitudinal ridges, loss or decrease in size of lunulae and opaqueness with or without onycholysis have been reported in patients with **AIDS[1,10]**

MANAGEMENT[11,12]: No single clinical or laboratory finding can be termed as pathognomonic of AIDS. Diagnosis requires detailed clinical history, physical examination, careful follow up of suspected cases and laboratory fmdings. Important laboratory tests include full blood count, liver function tests, culture of blood, semen or urine for cytomegalo virus, quantitative immunoglobulin profile, determination of T-helper & T-suppressor ratio, X-ray chest and antibody assays of HTLV-III virus. The infections such as histoplasmosis, cryptococcosis and herpes simplex may present as skin lesions that clinically mimic another disease. The neoplastic lesions may appear on the skin as small benign and inconspicuous lesions. Skin biopsy, microscopic examination and culture for acid fast and fungal infections are therefore mandatory even if the clinical diagnosis seems certain.

There is no specific treatment for AIDS patients. The therapy however should be directed against the three primary defects i.e. Kaposi's sarcoma, opportunistic infections and immunodeficiency symptoms, which is possible only if the immune defect is corrected in some way.

Vinblastine, adriamycin and bleomycin have been used to treat malignancies, but the additional risk of immunodefIciency and susceptibility to infection is a problem. Antiviral agents such as acyclovir may

be successful in treatment of herpes simplex and herpes zoster. Amphotericin-B is used in treating local and systemic candida infections. No specific treatment is available for cytomegalovirus, Epstein-Barr virus, cryptosporidium and retrovirus. HPA-23, ribovarin, suramin, isoprinosine, interleukin-2 and alpha interferon have been used as immunomodulators in AIDS patients with variable success. Recently the use of azidothymidine and thyropentin has been advocated in HTLV-III infections. Awareness of cutaneous manifestations in AIDS can help in early diagnosis and better management.

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