II: COMMON CLINICAL MANIFESTATIONS OF UNDIAGNOSED HIV INFECTION

INTRODUCTION

This chapter briefly describes several dermatologic and oral complications of HIV infection that may be observed on routine examination in patients attending outpatient clinics. It is hoped that this chapter will assist clinicians in recognising and properly treating these conditions, many of which may present in individuals not yet diagnosed with HIV infection, prompting consideration of HIV testing. The appendix to this chapter includes a number of photographs of these conditions to better serve the clinician at the point of care.

For the sake of brevity, the list of conditions presented in this chapter is not intended to be comprehensive, nor is the management presented in great detail; only general principles of therapy for common presentations are offered. A more comprehensive review of many conditions presented herein can also be found in *Chapter V: Recommendations for the Treatment of Opportunistic Infections among Adults and Adolescents* and in *Chapter X: Diagnosis and Treatment of Opportunistic Infections among HIV-Exposed and –Infected Children.* The reader is also encouraged to consult an HIV expert clinician and/or other references for further information. *Chapter I* includes a list of some popular resources for clinical consultation.

COMMON DERMATOLOGIC MANIFESTATIONS OF HIV INFECTION

Throughout the Caribbean, many patients infected with HIV initially present to a healthcare facility due to a skin complaint. Physicians practising in the region should therefore be knowledgeable about the skin conditions common in people living with HIV/AIDS (PLWHA). Many common skin disorders present in an aggressive form in PLWHA, especially in those with advanced HIV disease. Hence, any unusually aggressive skin condition should warrant consideration of undiagnosed HIV infection.

Long before the era of highly active antiretroviral therapy (HAART), physicians in the region had become familiar with many of the characteristic dermatologic presentations of HIV/AIDS. A clinical study conducted among HIV-infected patients attending a Bahamian dermatology clinic indicated that the leading HIV-associated skin disorders were seborrhoeic dermatitis, papular pruritic eruption, herpes zoster, hypo- and hyperpigmentation, xeroderma, folliculitis, and diffuse alopaecia with loss of the natural peppercorn curl in Afro-Caribbean patients (e.g. the thinning and straightening of hair).

The introduction of HAART to the region reduced the incidence of skin diseases among patients receiving antiretroviral therapy. However, close monitoring of the skin is still recommended for all patients on HAART, as several of the antiretroviral (ARV) medications can cause severe drug eruptions including toxic epidermal necrolysis and Stevens-Johnson syndrome. It is also important to note that other skin eruptions may indicate treatment failure and clinical HIV disease progression. Referral to a dermatologist experienced in HIV skin management is recommended.

The management of these dermatological conditions remains a challenge due to a relative lack of proper diagnostic equipment and prescription skin medications in many islands through the region.

Table 1: Common Dermatologic Manifestations of Undiagnosed HIV Infection

SKIN CONDITION	DIAGNOSTIC CLUES	USUAL TREATMENT
FUNGAL AND YEAST INFECTIONS		
Candidiasis	Moist, scaling lesions with satellite papules. Intertriginous infections common. Fingernail infection often presents with paronychia.	Topical imidazoles useful, but systemic therapy may be needed, e.g. ketoconazole.
Cryptococcosis	Widespread, skin-coloured, dome-shaped, translucent papules or nodules. Often resembles molluscum contagiosum on face and neck.	Rule out *Cryptococcal* meningitis. Systemic amphotericin B or fluconazole 400-800gm q.d x 8 weeks then 200gm q.d.
Histoplasmosis	Slightly pink 2-6mm coetaneous papules to larger reddish plaques and multiple shallow crusted ulcerations.	Amphotericin B or itraconazole.
Seborrhoeic dermatitis	Erythematous dermatitis, scaly, itchy plaques with indistinct margins affecting scalp, face, ears, hairline, chest, upper back, axillae, and groin.	Mild topical steroid + imidazole usually effective. Oral imidazole occasionally needed. Regular use of dandruff shampoo containing selenium sulphide (Selsun®), zinc pyrithione (Head & Shoulders®), zincon, sulphur and salicyclic acid (Sebulex®), or polytar.
Dermatophytosis	Scaly annular plaques with active borders and central clearing, may become extensive with confluent hyperpigmented patches. Anogenital and nail involvement common.	Topical imidazole or terbinafine. For nail involvement, systemic fluconazole 150mg q.w x 4 weeks or terbinafine 250mg q.d x 2 weeks (6-12 weeks for toenails).
VIRAL INFECTIONS		
Herpes simplex	Grouped vesicular lesions; large erosions may be seen in advanced HIV disease.	Oral acyclovir or valacyclovir until lesions heal (approx. 1 week). IV therapy for CNS involvement. Chronic suppressive therapy often necessary.
Herpes zoster	Unilateral vesicular or bullous dermatomal eruption, sometimes multidermal; bullae may become haemorrhagic; persistent pain.	High-dose oral acyclovir (800mg 4-6x q.d), famciclovir 500mg po t.i.d, or valacyclovir (Valtrex®) 1.0g t.i.d for 7-10 days. IV therapy in severe cases. Adjuvant topical antibiotics may be beneficial. Gabapentin, tri-cyclic antidepressants for post-herpetic neuralgia.
Molluscum contagiosum	2-5mm pearly, flesh-coloured papules typically on the face and anogenital region, often with central umbilication.	Chemical cauterisation (silver nitrate, podophyllin, 5-fluorouracil, phenol, tretinoin) or light cautery or cryotherapy of lesions. Often improves

SKIN CONDITION	DIAGNOSTIC CLUES	USUAL TREATMENT
		with HAART.
Human papillomavirus (warts, condyloma acuminata)	Diffuse flat and filiform lesions especially in anogenital region though can occur elsewhere.	Podophyllin chemical cautery, electrocautery, cryotherapy, surgery, or laser ablation.
BACTERIAL INFECTIONS		
Staphylococcus aureus	Cellulitis, abscesses, bullous impetigo, ecthyma, and folliculitis are all common.	Oral antibiotics with adjuvant topical therapy, drainage of abscesses; antipruritic therapy prn.
Secondary syphilis (due to *Treponema pallidum* infection)	Rash may take many forms. Copper-coloured lesions are often present on palms and soles. Serology may be negative in advanced HIV disease. CNS involvement common.	Benzathine penicillin (3 weekly IM doses of 2.4 million U).
Bacillary angiomatosis (due to *Bartonella henselae* infection)	Friable vascular papules, plaques, and subcoetaneous nodules, usually tender. Lesions may be pedunculated, verrucous, and bleed extensively with trauma. Can be confused with Kaposi's sarcoma.	Erthyromycin 500mg po q.6h or doxycycline 100mg b.i.d x 12 weeks.
OTHER SKIN DISORDERS		
Scabies	Excoriated, crusted, small papules, burrows, intense itching, worse at night.	Benzyl benzoate (12.5% in children and 25% in adults) or permethrin 5% cream x 1 day. Repeat in 7days. Antihistamines for relief of itching.
Crusted (Norwegian) scabies	Highly contagious disseminated scabies infection characterised by erythema, hyperkeratosis, and crusting. May be non-pruritic; bacterial superinfection can lead to sepsis.	Isolate patient if possible until therapy is complete. Permethrin 5% cream at least weekly until coetaneous manifestations clear. Ivermectin 6% ointment daily may be added; oral ivermectin also effective.
Eosinophilic folliculitis	Marked pruritus; discrete erythematous or hyperpigmented follicular papules on trunk, head, neck, and proximal extremities.	Astemizole 10mg q.d + topical steroid (oral imidazole use contraindicated with astemizole); UV phototherapy; permethrin; antihistamines for relief of itching.
Kaposi's sarcoma (KS)	Early lesions are round or irregular dark brown to violaceous or pinkish red macules, papules, or plaques. Usually non-tender. Often symmetrical along skin tension lines. Lesions can resemble ecchymoses. Oral lesions may	Numerous options depending on location and severity including local radiotherapy, cryotherapy, intralesional vinblastine, or interferon alpha; surgical excision. Often improves and may even remit with HAART. Look for visceral (e.g. GI, pulmonary) involvement.

SKIN CONDITION	DIAGNOSTIC CLUES	USUAL TREATMENT
	precede skin lesions.	
Non-Hodgkin's lymphoma	Skin lesions are usually papules or nodules.	Chemotherapy.
Drug reactions and eruptions	TMP-SMX, erythromycin, dapsone, Dilantin®, NNRTIs (NVP>EFV) are common culprits. HIV+ patients have increased frequency of skin reactions to many drugs, ranging from a fixed drug eruption to generalised maculo-papular eruption, exfoliative dermatitis, and even Stevens-Johnson syndrome, toxic epidermal necrolysis, or anaphylaxis.	Withdraw suspected drug. Stevens-Johnson syndrome and toxic epidermal necrolysis are managed as burns with intensive inpatient supportive care.
Psoriasis	Incidence and severity heightened in HIV disease. Secondary bacterial infection common.	Topical steroid or tar preparations, antimicrobial therapy for superinfection. Often improves with HAART.
Pruritic papular eruption	Scattered itchy papules and plaques predominantly on extremities. Recent research suggests arthropod (insect) bites followed by exaggerated immune response are responsible.	Topical steroids may help. Doxepin (starting at 10mg q.d and increased to as much as 150mg q.d) may be an effective antipruritic. Anecdotal evidence that condition improves with HAART.
Disturbance in pigmentation	Areas of hypo- or hyperpigmentation. Hyperpigmentation commonly seen in nails, skin, or oral mucosa of dark-skinned persons taking AZT.	Cosmetic cover creams. May improve with HAART. Consider substituting another NRTI for AZT.
Diffuse hair loss (alopaecia) or change in hair appearance	Hair becomes thin and sparse; loss of natural tight curl in Afro-Caribbean patients.	May improve with HAART.
Xeroderma	Severe dryness of the skin of face, trunk, and extremities.	Topical emollients prn (e.g. Aquaphor® ointment).
Prurigo nodularis	Hyperpigmented, hyperkeratotic excoriated itchy papules and nodules.	Oral antihistamines, potent topical steroids under occlusion.
Hyperpigmented or blue nails	Common, but benign, side effect of AZT.	Reassurance; consider substituting another NRTI for AZT if distressing to patient.