RESIDENT ROUNDS: PART II

HIV Dermatoses

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Human immunodeficiency virus (HIV) can affect every organ of the body in an array of various ways, and the skin is no exception. Moreover, dermatologic complaints are extremely common in the HIV-positive patient population and tend to have a tremendous impact on quality of life, rendering the study and familiarity with these conditions very helpful. We provide a list of HIV-associated dermatoses as a useful reference; with special attention paid to how presentation and treatment differ from in immunocompetent individuals.

Bacterial Infections

Diagnosis	Organism	Clinical Presentation	Treatment	Comment
Folliculitis	*Staphylococcus aureus*	Intensely pruritic pustules; may lead to furunculosis	Beta-lactams; TMP-SMX; tetracyclines	MRSA 6x more common in HIV population than in immunocompetent
Bacillary Angiomatosis	*Bartonella henselae; bartonella quintana*	Small red to violaceous lobular papules with vascular appearance; pyogenic granuloma-like, but multiple and eruptive	Macrolides; tetracyclines	May have extracutaneous involvement including hepatosplenic and neurologic
Mycobacterial	*Mycobacterium avium intracellulare* complex commonly	Nodules with sinus formation (scrofula), sporotrichoid cold abscess, papulonecrotic lesions	Antimycobacterials such as rifampicin, rifabutin, ciprofloxacin, amikacin, ethambutol, treptomycin, clarithromycin or azithromycin	Granulomatous reaction not commonly seen on pathology due to lack of immunologic response; needs AFB stain
Syphilis	*Treponema pallidum*	More severe chancre; more commonly concomitant primary and secondary syphilis	Primary: IM PCN G one time Secondary: IM PCN G one time Tertiary: IM PCN G x three weeks Neurosyphilis: IV PCN G x 14 days PCN Allergic: Ceftriaxone, azithromycin, doxycycline	Patients with RPR>1:32 require lumbar puncture to rule out neurosyphilis; Jarisch-Herxheimer reaction more common upon treatment

Viral Infections

Diagnosis	Organism	Clinical Presentation	Treatment	Comment
Acute HIV seroconversion	HIV	Morbilliform eruption with systemic symptoms including fever, lymphadenopathy and mucosal ulcerations	Early detection	Suspect 2-4 weeks after exposure history
Condyloma acuminatum	HPV 6 & 11	May occur in atypical locations such as extremities; higher rates of intraepithelial neoplasia	Topical cytotoxic/ Immunomodulatory /antiviral agents (podophyllotoxin, imiquimod, cidofovir)	Biopsy to rule out squamous cell carcinoma when appropriate
Molluscum contagiosum	Poxvirus	Larger, disfiguring umbilicated papules in head and neck	Destruction (cryotherapy/ curettage); imiquimod; acyclovir	Consider penicillinosis, cryptococcus and histoplasmosis in umbilicated differential
Herpes Zoster	VZV	Disseminated disease; pustular and hemorrhagic lesions; chronic papular lesions	IV acyclovir when disseminated or patients with CD4 <200	7-15x more likely in HIV+ patients; consider ACV or VZIG prophylaxis

Diagnosis	Organism	Clinical Presentation	Treatment	Comment
Herpes Simplex	HSV 2>1	Chronic nonhealing ulcerative lesions	Oral ACV; cidofovir	Foscarnet and cidofovir both appropriate when reduced thymidine kinase suspected in HSV/VZV infection
Cytomegalovirus	CMV	Refractory, non-healing and extensive anogenital and ulcers, verrucous plaques or papules	Oral or IV vanganciclovir; IV ganciclovir	Tend to be co-infected with VZV or HSV; cutaneous disease rare
Hairy leukoplakia	EBV	White corrugated plaques on lateral aspects of tongue	ART; podophyllin; gentian violet	Up to 25% of HIV patients

Fungal Infections

Diagnosis	Organism	Clinical Presentation	Treatment	Comment
Dermatophytosis	*Trichophyton rubrum*	Tend to have full-blown moccasin distribution; trunk may be involved in tinea cruris; fungal folliculitis more common	Oral allylamine or azoles often needed; topical azoles in limited disease	Most commonly seen cutaneous disorder in HIV+ patients
Chronic paronychia	*Trichophyton rubrum*	Superficial white subungual onychomycosis most common to HIV	Oral terbinafine for at least 12 weeks	Often recurrent, Protease inhibitor indinavir associated with acute paronychia.
Penicilliosis	*Penicillinum marneffei*	Umbilicated papules, mucosal erosions or ulcers	Amphotericin B; itraconazole	3rd most common opportunistic infection in Asia in Asia
Cryptococcus	*Cryptococcus neoformans*	Umbilicated papules, often central necrosis as opposed to giant molluscum, eczematous plaques; isolated penile plaque	Amphotericin B; voriconazole	Rarely primarily cutaneous
Oral candidiasis	*Candida albicans*	May have more widespread or esophageal involvement	Oral azoles	Lifetime prophylaxis recommended; 90% of HIV+ patients have candidiasis

Inflammatory Dermatoses

Diagnosis	Etiology	Clinical Presentation	Treatment	Comment
Seborrheic Dermatitis	Malassezia driven	Exaggerated facial scaling, may have acute presentation	Resistant to conventional therapy; may require oral antifungal therapy	Affects up to 85% of HIV+ population
Eosinophilic folliculitis	Malassezia v. immunologic dysregulation	Intensely pruritic head, neck, and upper body excoriated papules. Often just excoriations with no easily found primarypapules	Antiretroviral therapy, phototherapy, azole antifungals	Necessitates exclusion of infectious folliculitis
Papular pruritic eruption	Exaggerated arthropod reaction, possibly from past bites and stings	Excoriated symmetric papules on the extremities	Phototherapy; topical corticosteroids, antihistamines	More common in Africa
Acquired icthyosis	Immunosuppression (CD4<50)	Large plate-like scales on legs	Supportive; ART	Marker of concomitant infection with HTLV-II
Photosensitivity		May resemble PMLE, actinic prurigo or chronic actinic dermatitis		Affects up to 5% of HIV+ population; also consider photo-lichenoid drug eruption

Drug-Induced Dermatoses				
Diagnosis	**Offending Agent**	**Clinical Presentation**	**Treatment**	**Comment**
Morbilliform Drug Eruption	TMP-SMZ; beta-lactams	Typical maculopapular rash starting proximally and eventually generalizing	Supportive; topical corticosteroids and oral antihistamines	Up to 70% of HIV+ patients experience morbilliform eruption when receiving TMP-SMX to treat infection; rechallenge is often safe if needed.
Fixed drug eruption	TMP-SMZ; NSAIDs, tetracyclines	Single or few inducible plaques; genital ulcer	Safe to continue drug if necessary	More likely to have deep bullous disease or deep, disfiguring hyperpigmentation
Stevens-Johnson Syndrome/ Toxic Epidermal Necrolysis	TMP-SMZ, nevirapine	Generalized epidermal necrosis; 100-1000x more likely in HIV+ population	Withdraw offending agent immediately, supportive care, appropriate consultation	ART other than nevirapine is an unlikely but possible cause of SJS/TEN

HIV-Related Neoplasms				
Diagnosis	**Etiology**	**Clinical Presentation**	**Treatment**	**Comment**
Kaposi Sarcoma	HHV-8	Violaceous papules and plaques following lines of cleavage and lanceolate shape on the upper body	Antiretroviral therapy, chemotherapy (taxanes, anthracyclines); cryotherapy	Examine oral mucosal and palate for involvement; assess for GI/lung disease
Cutaneous B/T-cell Lymphoma	EBV (1/2 of cases); immunosuppression (CD4<200)	Nodules and tumors; ulcerations; panniculitides	Chemotherapy-dependent on subtype	Necessitates exclusion of HTLV-1 induced T-cell leukemia
Nonmelanoma skin cancer	HPV; immunosuppression	More often on trunk and proximal extremities than in immune competent hosts	As in immune-competent hosts	More aggressive and 3-5x more likely in HIV population

DISCLOSURES

None of the authors have declared any relevant conflicts.

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