HIV AND SKIN DISEASE

The skin is the largest and most visible organ of the body. Approximately 90% of people living with HIV develop skin changes and symptoms at some stage during the course of their disease.

The spectrum of skin changes in HIV infection is quite wide. With improvements in the anti-retroviral treatment of HIV, the skin diseases associated with HIV infection have also changed. With good viral control and preservation of the immune system, skin problems associated with opportunistic infections (infections other than HIV) and many other skin problems associated with HIV have become far less common, less severe and easier to treat.

Skin infections (bacteria, fungi, virus, or yeasts), various rashes, skin cancers, drug rashes and other drug-induced skin changes are all seen.

Skin diseases can warn of progression of HIV disease, as many skin diseases are more likely to occur as the white blood cell (CD4) count decreases. Skin problems, however are very common and may not even be related to HIV infection.

The following sections detail some of the more common skin problems encountered. Virtually all of these conditions can occur in the absence of HIV infection.

SHOULD I BE TESTED FOR HIV?

Have you ever had sex with someone infected or possibly infected with HIV/AIDS?
Have you ever had anal sex?
Have you shared needles to take drugs or other substances?
Are you uncertain about your sexual partners’ sex practices or drug use?
Have you had sexually transmitted diseases?

If you answered ‘yes’ to any of these questions, you may want to be tested. (HIV is not transmitted by normal skin contact such as hugging). If you have any concerns you should talk to your doctor.

INFECTION WITH HIV - SEROCONVERSION ILLNESS

About two to four weeks after exposure and infection with the HIV virus most people develop an illness very similar to ‘glandular fever’ or infectious mononuclosis. This illness can include a sore throat, fever, enlargement of glands, headache, sore neck, muscle and joint aches, and even nausea and vomiting.

It is usually accompanied by a rash which is similar to many other viral rashes such as measles or rubella. The rash may or may not be itchy. It is red and spotty and begins on the upper body, face and neck. Sometimes there is involvement of the palms with noticeable peeling of the skin. Ulcers can occur in the mouth and genital regions.

The test for HIV becomes positive in the weeks following this ‘seroconversion’ reaction. Many different infections and reactions can cause a similar type of illness and it is not specific for HIV infection.

OTHER INFECTIONS ASSOCIATED WITH HIV

There are a number of skin infections which occur more commonly in HIV infected individuals as immunity decreases. These infections are also seen in non-HIV infected individuals. In HIV infection they may however be more severe and difficult to treat or control.
**VIRAL INFECTIONS**

With improved anti-retroviral drug control of HIV infection, other infective skin diseases have usually become less common and easier to control. Several viral infections occur more commonly. They may affect any region of the skin, mouth, eyes, nose, rectal or genital regions.

**Herpes Simplex**

Most people have been exposed to the herpes simplex virus. There are two types of herpes simplex viruses. Herpes simplex I usually causes recurrent blisters around the nose and mouth which are commonly known as 'cold sores'. Cold sores are often triggered by sun exposure, infections such as colds and flu, and being 'run down'. Herpes simplex II is the main cause of herpes sores on the genitals. Herpes sores can, however occur anywhere on the skin. Normally herpes lesions heal within seven to fourteen days. The outbreaks of sores can recur, and usually become fewer and further apart over time.

In HIV, herpes simplex may recur more frequently, take longer to heal, be more severe and widespread or occasionally cause longstanding painful ulcers. The onset of herpes is usually preceded by a burning and stinging sensation, then little fluid filled 'blisters' appear, which break down and crust over before healing. Topical creams are available for cold sores. For more severe episodes, or frequently recurrent or persistent sores there are several medication available to both treat and prevent these sores.

**Herpes Zoster (Shingles)**

The rash of herpes zoster (shingles) is due to reactivation of the chickenpox virus, which has lain dormant in the body since childhood. Pain often precedes a blistering and later a crusty rash appears in a band like pattern. Shingles usually only involves one side of the body. It commonly involves the trunk, or less often an arm, leg, or region of the face. Development of shingles may be the first clue that someone is infected with HIV and that their immune system has been weakened. This painful condition can last for several weeks and occasionally spreads to other parts of the body. Pain may persist for a while after the skin has healed due to inflammation of the nerves. Several oral anti-viral medications are helpful particularly when started very early after onset of shingles (within 3 days). Early treatment can reduce the severity and duration of pain associated with shingles. Topical lotions may also help symptoms and discomfort. There are also good treatments available for pain should it occur.

**Molluscum Contagiosum**

Molluscum contagiosum is a viral infection. It causes little skin lumps that are commonly seen in children and less frequently among young adults. They appear as smooth waxy, skin coloured bumps, varying in size from the head of a pin to around half a centimeter. They usually have a central core filled with white cheese-like material. They are not painful and usually do not itch, though an itchy rash may sometimes develop around the lesions of Molluscum Contagiosum. In HIV they can become large, numerous and widespread if not treated. There are many treatment options. They can be treated by freezing, paints, creams or removal of their central core. As they are caused by a virus, new lesions may continue to develop at different sites for some time and multiple treatments are usually required. They can live and spread in warm water. Thus people with Molluscum Contagiosum should avoid baths, spas and heated swimming pools. Showering, instead of having baths will reduce the occurrence of new lumps of molluscum contagiosum.

**Warts**

These are caused by the human papilloma virus. They are common, painless growths that can occur in any place on the skin particularly on the hands, feet and face. They are also seen on the genital and anal regions, and around 75% of sexually active adults are infected with the wart virus. When warts occur in HIV infection, they can be larger, more numerous, and more widespread. When they develop in the rectal or genital regions, they can sometimes become quite large and uncomfortable. Warts can be difficult to treat and numerous options for treatment are available but need to be tailored to the individual and their type of warts. Recurrence of warts after treatment is common.

Genital warts are associated with an increased risk of developing cervical cancer and cancer of the anus or rectum and this is more common in HIV. Women who have had genital warts should have regular Pap smears. Individuals who have had anal warts, you should have regular rectal examinations.

**Oral ‘Hairy’ Leukoplakia**

Oral hairy leukoplakia is an unusual condition characterised by small light fuzzy patches which are most often seen on the sides of the tongue. This is believed to be caused by a member of the herpes virus family known as the Epstein-barr virus, which causes glandular fever. This can be confused with ‘thrush’, but does not usually cause any symptoms.
FUNGAL INFECTIONS
Oral Candidiasis 'Thrush'
Yeast infection involving the mouth, the vagina, armpits and the groin may be a problem in people living with HIV.

When this develops in the mouth, it often appears as white curd like patches on the tongue and inner surfaces of the cheeks. Thrush can commonly cause a soreness of the mouth or throat and occasionally difficulty swallowing or loss of taste.

Yeast infection can also cause an itchy red rash involving the skin folds of the groin and under the breasts which can spread onto the genital and buttock regions. These infections can be treated by anti-fungal creams, lotions, and tablets.

Tinea
Other fungal infections such as tinea are common and can involve widespread areas of the skin, causing redness, scaling and itch. These can occur in various areas of the body including the scalp (tinea capitis), groin (jock itch), hands, feet (athletes foot) and nails (white or discoloured thickened nails). There are effective topical and oral medications available.

Bacterial Infections
Bacterial skin infections are common. The bacterial infection most commonly seen is impetigo which is characterised by the widespread development of multiple clusters of small soft fluid filled blisters which tend to break easily oozing a yellowish liquid. Once these blisters break, large shallow ulcers remain which become covered by a yellowish crust. The Bacteria that cause impetigo can spread into the bloodstream and throughout the body. Thus seeking treatment for these skin infections is important.

Bacterial folliculitis appears as small, red, pus-filled bumps around hairs (follicles) on your skin. It looks a bit like 'white heads' that occur in acne. This can affect on any part of the body. A course of antibiotics is usually used to treat bacterial folliculitis.

Scabies
Scabies is caused by a tiny mite that lives on human skin. It can be spread through sex, infested clothing, sharing a bed or close personal contact.

It is extremely itchy and causes a rash which is often worse between the fingers, genital region, breasts, buttocks, elbows and wrists.

Your doctor or dermatologist will look for ‘burrows’ using magnification and will often remove a mite to study under a microscope to confirm the diagnosis.

Scabies is usually treated with a cream. The itch may take a while to totally settle after treatment. You must also wash your clothing and bedding with hot water, along with ensure all close contacts are treated (e.g. partners and people living in the same house) to prevent reinfection. Your doctor will tell you how to do this.

SKIN CANCER
Kaposi's Sarcoma
Kaposi’s sarcoma is a tumour (abnormal growth) of the cells that make up blood vessels. It is more common in men with HIV who have had sex with men and is thought to be at least partially due to a type of herpes virus that can be sexually transmitted (Human Herpes Virus 8). The lesions of Kaposi’s sarcoma do not hurt or itch unless they become large. They can appear anywhere on the body or in the mouth, and commonly involve the legs and feet. Kaposi’s sarcoma can also involve internal organs such as the lung and gut. They vary in colour from pink, dark red, purple to brown and are often mistaken for insect bites, birth marks or bruises. They may be flat or raised and vary greatly in size.

There are a variety of treatments available. Treatments range from a retinoid cream (a vitamin A derivative), freezing, surgical removal, a variety of injections, X-ray therapy and chemotherapy. Make-up can help hide Kaposi’s sarcoma lesions.

The size and number of Kaposi’s Sarcoma lesions reflects the degree of immune impairment by HIV infection. Improved anti-retroviral control of HIV can stabilise or improve the purple spots and bumps of Kaposi's Sarcoma.
OTHER SKIN CANCERS

Melanoma
Skin cancers such as melanoma, basal cell and squamous cell carcinomas are common in Australians and may be more common in those living with HIV. These are usually treated surgically. You should have any new or changing mole, persistent crusty spots and lumps, or non-healing sores examined by a medical doctor. Find out how to check your skin for skin cancer and melanoma. Also check to find out if your sun protection measures are adequate. Ultraviolet light can also suppress the immune system.

Lymphoma (cancer of immune cells) can also involve the skin causing lumps or bumps. It is more common in people with HIV.

OTHER SKIN DISEASES

Dry Itchy Skin
Dry itchy skin is a common problem which may be worsened by HIV infection or medications used to treat HIV. Simple measures can be very helpful. Avoid long, hot showers or baths, wash quickly instead with warm water. Many soap substitutes are available which preserve the skins natural moisturising factors, and can be combined with an emulsifiable bath oil, and the regular use of a moisturiser. If your skin itch persists despite these measures your doctor or dermatologist will be able to suggest additional measures and check for other causes of itch.

Seborrhoeic Dermatitis
Seborrhoeic dermatitis is also common in people with HIV. It is partially caused by a yeast or fungus. Seborrhoeic dermatitis is a flaky red skin rash which usually affects the face, particularly the cheeks, forehead, eyebrows, nose and ears. It can also occur on the scalp when it is called 'dandruff'. The rash can also affect other areas such as the chest and groin. It can be itchy, particularly in the scalp. Seborrhoeic dermatitis is treated with cortisone and antifungal creams, foams and washes ( clotrimazole, ketoconazole) and a variety of medicated shampoos. When widespread it is occasionally treated with antifungal tablets (itraconazole, fluconazole, ketoconazole) for a short time.

Psoriasis
Psoriasis causes red patches with prominent scales which can be very thick and silvery. It usually involves the armpits, groin, elbows, knees, lower back and buttock crease. It also often involves the scalp and ears. See our section on psoriasis for more information on psoriasis and its treatment.

Hives and 'Itchy Red Bump Disease'
One of the skin problems that may affect individuals who have HIV is a widespread itching skin condition. This manifests as small red bumps. Larger patches of hives can sometimes occur as well. These recurrent itchy lesions, which may last a few hours, may be difficult to control, but usually responds to antihistamines and/or topical steroid creams.

Exaggerated Reactions to Insect Bites (Papular Urticaria)
Exaggerated reactions to insect bites are common in children and people living with HIV. Red, itchy, large red lumps occur in crops and persist for long periods after a mosquito or other insect bite. Bite sites can even blister. New bites can also trigger older bites to again become more itchy. It is often difficult not to scratch these bites. Scratches frequently become infected, crusty, pussy and may even leave scars. Cortisone creams, antihistamines, antibiotics and measures to prevent further insect bites may be required (e.g. take your pets to the vet to check and treat any fleas, wear long sleeves and apply insect repellent when outdoors).

Folliculitis (eosinophilic)
Eosinophilic folliculitis resembles acne and/or insect bites. This includes multiple small pimple-like spots on the chest and back and sometimes on the face scalp, legs and buttocks. These spots can be extremely itchy. Cortisone creams can be helpful, but often need to be combined with antihistamines or other tablets. A course of ultraviolet (narrow band or UVB) light treatments can be very effective.

DRUG RELATED SYMPTOMS

Drug Rashes
Drug eruptions are around 100 times more common in people living with HIV, and drug reactions are the most common reason that people need to change their anti-viral therapy in HIV. Most drug associated rashes begin in the first few weeks after starting a new drug.
Sulfonamides and other antibiotics were the main cause of drug-rashes in the past. More recently rashes associated with anti-viral medications have become a greater problem. It can sometimes be difficult to be sure exactly which drug is responsible for a rash, as many drugs are usually started at the same time to gain better viral control. Nevirapine, efavirenz, delavirdine, amprenavir and abacovir are more common causes of rash.

A rash can occur in isolation with just skin changes or be part of a major hypersensitivity reaction or ‘allergy’ with involvement of the bodies internal organs as well. More concerning drug-reactions are usually associated the new onset of any or all of the following: fever, tiredness, sore-throat, loss of appetite, swelling of the glands, feeling light-headed and faint, or just feeling unwell.

Other features of a drug-rash that warn of a major potentially life-threatening reaction are involvement of the mouth or eyes, tenderness of the skin particularly if blisters are present, or if there is associated swelling of the face and neck.

These drug-rashes range from minor red lumpy rashes to widespread redness through to occasional cases with blistering and even shedding of the skin (see picture of Stevens-Johnson Syndrome).

If you develop a rash in the first few weeks after starting a new medication it is important to contact your doctor. Some minor rashes without fever, mouth or eye involvement, or other new symptoms may settle with continuation of the drug while other potentially serious reactions necessitate prompt cessation of the associated drug.

A topical cortisone cream, cool baths with oil and oatmeal, and an antihistamine can be used to reduce itch.

'Lipodystrophy' - Fat redistribution
Many patients on antiviral medication notice changes in the distribution of their fat. Males more often loose fat while females may accumulate fat.

Fat often accumulates on the abdomen, breasts and neck regions. At the same time fat may be lost on the arms, legs, buttocks and face. Veins often become increasingly obvious on the arms and legs. Loss of cheek pads can give a more gaunt appearance.

This reaction occurs slowly, over months or years. Regular (moderate) exercise and a balanced diet can help reduce some of these changes. Fat redistribution can also be associated with changes in the level of cholesterol and other blood fats along with dry irritable skin.

Nail changes (Paronychia) and Hair loss
Indinavir, an anti-viral, can cause pain, redness and swelling around the nails of the feet or hands. Indinavir and several other anti-retroviral drugs have also been associated with hair loss.

Drug Rash to nevirapine an anti-seroviral

Summary
• Most skin conditions in people living with HIV are also seen in individuals not infected with HIV
• Skin changes occur in at least 90% of people with HIV
• Drug rashes and drug-induced skin changes have become a common problem.

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