

Dermatology Talk for VTS

15th June 2017





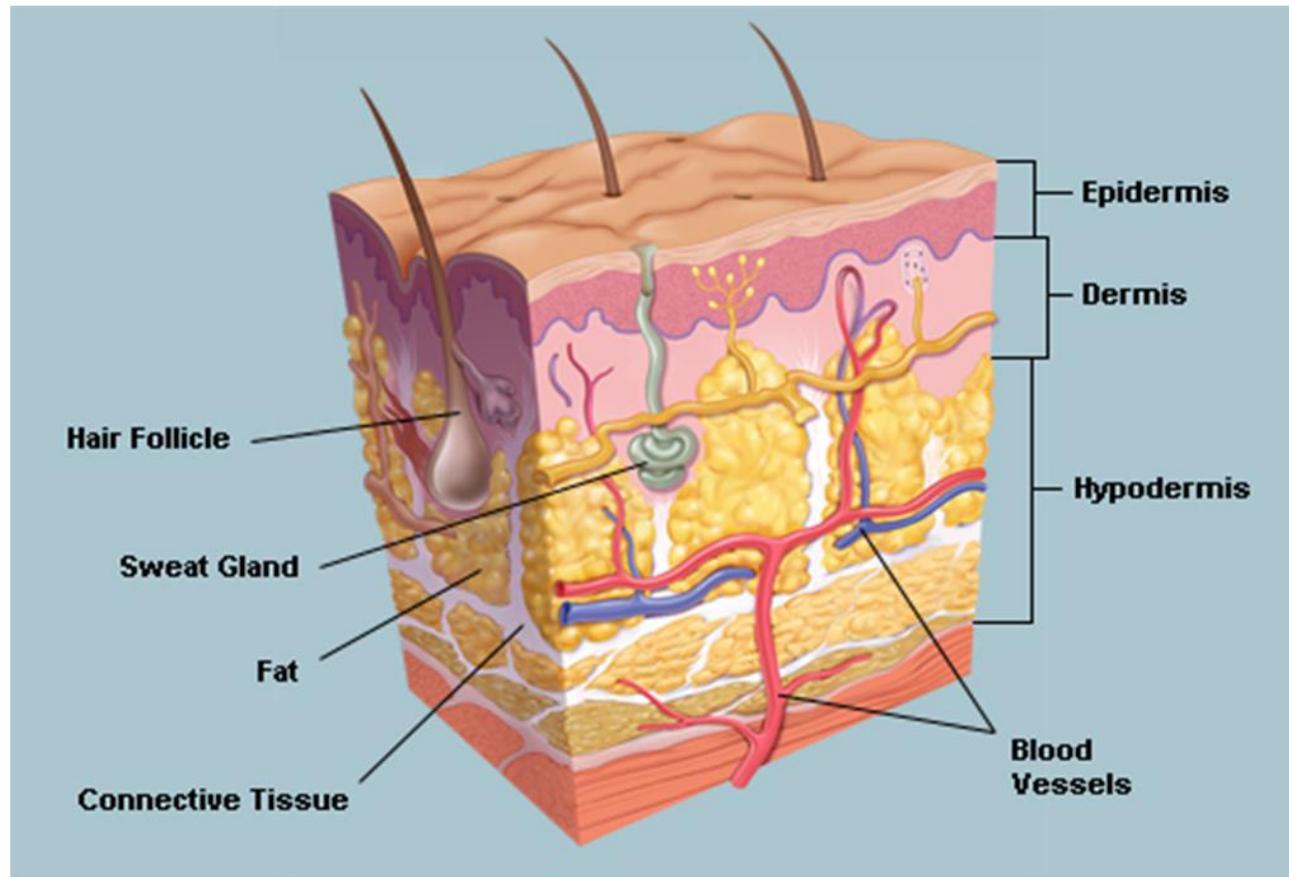
Overview of topics covered today

- ▶ Eczema
- ▶ Pompholyx
- ▶ Psoriasis

- ▶ BREAK FOR TEA!

- ▶ Fungal infections of skin and nails
- ▶ Granuloma Annulare
- ▶ Lichen Planus
- ▶ Brief overview of Common Scalp problems

Diagram of the Skin





Eczema

Discoid Eczema



Scalp Eczema



Chronic Eczema



Eczema in children



What is Atopic Eczema?

Atopic eczema is a chronic, itchy skin condition that is very common in children but may occur at any age. It is also known as atopic dermatitis.

Atopic eczema usually occurs in people who have an 'atopic tendency'. This means they may develop any or all of three closely linked conditions; atopic dermatitis, asthma and hay fever (allergic rhinitis).

Often these conditions run within families with a parent, child or sibling also affected. A family history of asthma, eczema or hay fever is particularly useful in diagnosing atopic dermatitis in infants.

What is the cause of Atopic Eczema?

Atopic eczema arises because of a complex interaction of genetic and environmental factors.

These include defects in skin barrier function making the skin more susceptible to irritation by soap and other contact irritants, the weather, temperature and non-specific triggers.

What does Atopic Eczema look like ?

There is quite a variation in the appearance of atopic eczema between individuals. From time to time, most people have acute flares with inflamed, red, sometimes blistered and weepy patches. In between flares, the skin may appear normal or patients may suffer from chronic eczema with dry, thickened and itchy areas.

Thickened skin is called lichenification.

The presence of infection or an additional skin condition, the creams applied, the age of the person, their ethnic origin and other factors can alter the way eczema looks and feels.

Eczema in Infants

- **Infants less than one year old often have widely distributed eczema. The skin is often dry, scaly and red with small scratch marks made by sharp baby nails.**
- **The cheeks of infants are often the first place to be affected by eczema.**
- **The napkin area is frequently spared due to the moisture retention of nappies.**
- **Just like other babies, they can develop irritant napkin dermatitis if wet or soiled nappies are left on too long.**

Eczema in Toddlers

- As children begin to move around, the eczema becomes more localised and thickened. Toddlers scratch vigorously and the eczema may look very raw and uncomfortable.
- Eczema in this age group often affects the extensor aspects of joints, particularly the wrists, elbows, ankles and knees. It may also affect the genitals.

Eczema in Toddlers

- **As the child becomes older the pattern frequently changes to involve the flexor surfaces of the same joints (the creases) with less extensor involvement.**
- **The affected skin often becomes lichenified i.e. dry and thickened from constant scratching and rubbing**
- **In some children the extensor pattern of eczema persists into later childhood.**

Eczema in School aged children

- Older children tend to have the flexural pattern of eczema and it most often affects the elbow and knee creases. Other susceptible areas include the eyelids, earlobes, neck and scalp.
- They can develop recurrent acute itchy blisters on the palms, fingers and sometimes on the feet, known as pompholyx or vesicular hand / foot dermatitis.

Eczema in school aged children

- Many children develop a 'nummular' or discoid pattern of atopic dermatitis. This refers to small coin-like areas of eczema scattered over the body.
- These round patches of eczema are dry, red and itchy and may be mistaken for ringworm (a fungal infection).
- Mostly the eczema improves during school years and it may completely clear up by the teens, although the barrier function of the skin is never entirely normal.

Eczema in Adults

- **Adults who have atopic dermatitis may present in various different ways.**
- **They may continue to have a diffuse pattern of eczema but the skin is often more dry and lichenified than in children.**
- **Commonly adults have persistent localised eczema, possibly confined to the hands, eyelids, flexures, nipples or all of these areas.**
- **Recurrent staphylococcal infections may be prominent.**

Eczema in Adults

- **Atopic dermatitis is a major contributing factor to occupational irritant contact dermatitis. This most often affects hands that are frequently exposed to water, detergents and /or solvents.**
- **Having atopic dermatitis does not exclude contact allergic dermatitis (confirmed by patch tests) in children and adults)**
- **Hand dermatitis in adult atopics tends to be dry and thickened but may also be blistered**

Does Atopic Eczema persist forever?

Atopic dermatitis affects 15–20% of children but is much less common in adults.

It is impossible to predict whether eczema will improve by itself or not in an individual.

Sensitive skin persists life-long.

Children who develop atopic eczema before the age of 2 years have a much lower risk of persistent disease than those who develop atopic eczema later in childhood or during adolescence.

When does Atopic eczema start ?

It is unusual for an infant to be affected with atopic dermatitis before the age of three or four months.

The onset of atopic eczema is usually before two years of age although it can manifest itself in older people for the first time.

Atopic eczema is often worst between the ages of two and four but it generally improves after this and may clear altogether by the teens.

Implications of eczema for occupation

Certain occupations such as farming, hairdressing, domestic and industrial cleaning, domestic duties and care-giving expose the skin to various irritants and, sometimes, allergens.

This aggravates atopic eczema.

It is wise to bear this in mind when considering career options — it is usually easier to choose a more suitable occupation from the outset than to change it later.



**"You need to do something about your
dry skin."**

What is the treatment for atopic dermatitis?

Treatment of atopic eczema may be required for many months and possibly years.

It nearly always requires:

- Reduction of exposure to trigger factors (where possible)**
- Regular emollients (moisturisers)**
- Intermittent topical steroids**

Treatment of Atopic Eczema

- ▶ Emollients- Plenty required when prescribing. An adult will need 2x500g a month if applying over large parts of the body up to qds
- ▶ Emollients- greasier the better or as patient will tolerate
- ▶ Liquid/ white soft paraffin 50/ 50 % is good but warm patients it may stain clothing. Epaderm or Cetraben ointments also good choices.
- ▶ Cetraben, Doublebase, Epaderm, Oilatum, Aveeno creams all useful if patient prefers a less greasy option.
- ▶ Soap avoidance is important – can prescribe Dermol 500 lotion as a soap substitute. Mostly bath oils no longer routinely prescribed.

Cost of prescriptions/ pre payment certificates

- ▶ Remember that many emollients such as E45 and Vaseline Intensive Care may be bought Over the Counter and be cheaper if patient pays for their prescriptions
- ▶ Also patients can get pre payment certificates which may be much more cost effective. Dermatology patients often require 3 or more items making a 3 month pre payment certificate very cost effective.
- ▶ Current cost is £ 8.60 per item
- ▶ A 3 monthly pre payment is £ 29.10 for 3 months (therefore 4 items pays for itself)
- ▶ A 12 monthly certificate is £104 for 12 months.

Steroid ladder

- ▶ It is best to get to know a few products very well and be confident how to use them.
- ▶ Mild potency. 1% Hydrocortisone cream or ointment are suitable for face x30 g
- ▶ Moderate potency. Eumovate cream = Clobetasone 0.05 % or ointment for moderate eczema x30 or 100 g anywhere except face, Can be used in flexural areas such as groin.
- ▶ Potent. Betnovate or Mometasone 0.1 % (Elocon) cream or ointment for Trunk, arms and legs. Not face or flexures
- ▶ Very potent. Dermovate = Clobetasol 0.05 % cream or ointment . Aim not to use more than 30g in 3 months.

Ointments or creams?

- ▶ If skin is very dry or sensitive then use ointments if possible, as they are greasier and contain less preservatives than creams.
- ▶ Patients will find ointments messier so you need to ask how they are getting on with their treatment and be prepared to change it.
- ▶ Sometimes they won't want to disappoint you by saying they don't like it so ask how much they have left from your last prescription!
- ▶ Consider giving 2 or 3 different types to try- patient may use different emollients on different parts of the body.

Treatment of Atopic eczema

In some cases, management may also include one of more of the following:

- Topical calcineurin inhibitors, such as pimecrolimus cream or tacrolimus ointment
- Antibiotics
- Antihistamines
- Phototherapy
- Oral corticosteroids

Longstanding and severe eczema may be treated with an immunosuppressive agent.

- Methotrexate
- Ciclosporin
- Azathioprine



**"I don't know what these dots are ...
but ya mind if I connect 'em?"**

What is Pompholyx?

Pompholyx is a form of hand/foot eczema characterised by vesicles or bullae (blisters).

It is a form of vesicular dermatitis of hands and feet, also called vesicular endogenous eczema, and may be the same condition as dyshidrotic eczema.

It is sometimes subclassified as cheiropompholyx (hands) and pedopompholyx (feet).

Pompholyx affecting lateral fingers



Pompholyx eczema



Pompholyx affecting nails and palm



Who gets Pompholyx

Pompholyx most often affects young adults.

- **It is more common in females than males.**

- **Many of them report palmoplantar hyperhidrosis.**

- **There is a personal or family history of atopic eczema in 50%.**

What causes pompholyx ?

Pompholyx is multifactorial. In many cases it appears to be related to sweating, as flares often occur during hot weather, humid conditions, or following emotional upset. Other contributing factors include:

- **Genetics**
 - **Contact with irritants such as water, detergents, solvents and friction**
 - **Association with contact allergy to nickel and other allergens**
 - **Inflammatory dermatophyte (tinea) infections**
- Adverse reaction to drugs, most often immunoglobulin therapy.**

Clinical features of pompholyx

Pompholyx presents as recurrent crops of deep-seated blisters on the palms and soles. They cause intense itch and/or a burning sensation.

The blisters peel off and the skin then appears red, dry and has painful fissures (cracks).

When involving the distal finger adjacent or proximal to the nail fold, it can result in paronychia (nail fold swelling) and nail dystrophy with irregular pitting and ridges.

How is Pompholyx diagnosed ?

The clinical presentation is typical.

- If suspicious of a fungal infection (tinea pedis), skin scrapings should be taken for mycology.

- Patch testing is indicated in chronic or atypical cases.

- Skin biopsy is rarely necessary. It shows spongiotic eczema.

People with pompholyx that are found to be allergic to nickel must try to avoid touching nickel items.

What is the treatment for pompholyx?

Pompholyx is challenging to treat. Topical therapy is relatively ineffective because of the thick horny layer of skin of palms and soles.

- Wet soaks can help to dry up blisters, using dilute potassium permanganate, (prescribe as Permitab tablets- dissolve 1 tablet in 5 litres water).**
- Soak feet daily for 15 minutes in warm solution of potassium permanganate.**
- Warn re brown staining! Suggest buy new buckets or plastic bowls to keep for this purpose.**

Treatment of pompholyx

- Cold packs
- Soothing emollient lotions and creams
- Potent antiperspirants applied to palms and soles at night
- Protective gloves should be worn when doing wet or dirty work
- Well-fitting footwear, with 2 pairs of socks to absorb sweat and reduce friction

Treatment for Pompholyx

- **Very potent topical steroids applied to new blisters under occlusion, and ointments applied during the inflamed dry phase**
- **Oral antistaphylococcal antibiotics for secondary infection**
- **Topical or oral antifungals for confirmed dermatophyte infection.**
- **In patients with hyperhidrosis, probanthine or oxybutynin is worth trying.**
- **In severe cases, methotrexate, azathioprine and ciclosporin are indicated in secondary care.**

What are the complications of pompholyx ?

Secondary bacterial infection with *Staphylococcus aureus* and/or *Streptococcus pyogenes* is common in pompholyx, and results in pain, swelling and pustules on the hands and feet.

Outlook for pompholyx

Pompholyx generally gradually subsides and resolves spontaneously.

It may recur in hot weather or after a period of stress, and in some patients is recalcitrant.



"This is the worst skin condition I've ever seen!"

"He hasn't undressed yet, Doctor."

Psoriasis

Plaque Psoriasis



Scalp Psoriasis



Plaque psoriasis



Guttate psoriasis and psoriasis of nail



Psoriasis

Psoriasis is a chronic inflammatory skin condition characterised by clearly defined, red and scaly plaques (thickened skin).

It is classified into several subtypes.

Types of psoriasis

Post-streptococcal acute guttate psoriasis

- Widespread small plaques
- Often resolves after several months

Small plaque psoriasis

- Often late age of onset
- Plaques <3 cm

Chronic plaque psoriasis

- Persistent and treatment-resistant
- Plaques >3 cm
- Most often affects elbows, knees and lower back
- Ranges from mild to very extensive

Scalp psoriasis

- Often the first or only site of psoriasis

Types of psoriasis

Unstable plaque psoriasis

- Rapid extension of existing or new plaques
- Koebner phenomenon new plaques at sites of skin injury
- Induced by infection, stress, drugs, or drug withdrawal

Flexural psoriasis

- Affects body folds and genital
- Smooth, well-defined patches
- Colonised by candida yeasts

•Overlap of seborrheic dermatitis and psoriasis

- Affects scalp, face, ears and chest
- Colonised by malassezia.

Types of psoriasis

Palmoplantar psoriasis

- Palms and/or soles
- Painful fissuring

Nail psoriasis

- Pitting, onycholysis, yellowing and ridging
- Associated with inflammatory arthritis

Erythrodermic psoriasis (rare)

- May or may not be preceded by another form of psoriasis
- Acute and chronic forms
- May result in systemic illness with temperature dysregulation, electrolyte imbalance, cardiac failure

What causes psoriasis?

Psoriasis is multifactorial. It is classified as an immune-mediated inflammatory disease (IMID). Genetic factors are important.

Theories about the causes of psoriasis need to explain why the skin is red, inflamed and thickened.

It is clear that immune factors and inflammatory cytokines are responsible for the clinical features of psoriasis.

Who gets psoriasis

Psoriasis affects 2–4% of males and females.

It can start at any age including childhood with peaks of onset at 15–25 years and 50–60 years.

It tends to persist lifelong, fluctuating in extent and severity.

It is particularly common in Caucasians, but may affect people of any race.

About one third of patients with psoriasis have family members with psoriasis.

What are the clinical features of psoriasis?

Psoriasis usually presents with symmetrically distributed, red, scaly plaques with well-defined edges.

The scale is typically silvery white, except in skin folds where the plaques often appear shiny and they may have a moist peeling surface.

The most common sites are scalp, elbows and knees, but any part of the skin can be involved. The plaques are usually very persistent without treatment.

Clinical Features of Psoriasis

Itch is mostly mild but may be severe in some patients, leading to scratching and lichenification (thickened leathery skin with increased skin markings).

Painful skin cracks or fissures may occur. When psoriatic plaques clear up, they may leave brown or pale marks that can be expected to fade over several months.

Treatment of psoriasis

General advice

Patients with psoriasis should ensure they are well informed about their skin condition and its treatment.

There are benefits from not smoking, avoiding excessive alcohol and maintaining optimal weight.

Topical therapy

Mild psoriasis is generally treated with topical agents alone.

Which treatment is selected may depend on body site, extent and severity of the psoriasis.

Topical Treatment of psoriasis

- **Emollients**
- **Vitamin D analogues (calcipotriol) eg Dovonex**
- **Salicyclic Acid preparations eg Diprosalic**
- **Topical corticosteroids with Vitamin D analogues eg Dovobet gel or ointment**
- **Calcineurin inhibitors (pimecrolimus and tacrolimus)**
- **Coal Tar Preparations- eg Exorex**
- **Dithranol – short contact eg Micanol**

Phototherapy

Most psoriasis centres offer phototherapy with ultraviolet (UV) radiation, often in combination with topical or systemic agents.

**Locally Narrowband TLO1 ultraviolet B therapy is offered
Patient usually have 18-20 sessions over 6 -8 weeks
attending 2 or 3 times a week.**

**Currently 200 treatments in a lifetime is recommended
and a course of treatment not offered more than once in
12 months.**

**Patient must have 30 % or more of body surface
covered with psoriasis to be offered treatment.**

Systemic therapy

Moderate to severe psoriasis warrants treatment with a systemic agent and/or phototherapy. The most common treatments are:

- Methotrexate
- Ciclosporin
- Acitretin

Other medicines occasionally used for psoriasis include:

- Mycophenolate
- Apremilast
- Hydroxyurea
- Azathioprine

Systemic treatment for psoriasis

Systemic corticosteroids are best avoided due to risk of severe withdrawal flare of psoriasis and adverse effects.

Biologics or targeted therapies are reserved for conventional treatment-resistant severe psoriasis, mainly because of expense, as side effects compare favourably with other systemic agents.

These include:

- Anti-tumour necrosis factor alpha antagonists (anti-TNF α) infliximab, adalimumab, etanercept**

Many other monoclonal antibodies are under investigation in the treatment of psoriasis.

Aggravating factors for psoriasis

- **Streptococcal tonsillitis and other infections**
- **Injuries such as cuts, abrasions, sunburn (Koebnerised psoriasis)**

- **Sun exposure in 10% (sun exposure is more often beneficial)**

- **Obesity**

- **Smoking**

- **Excessive alcohol**

- **Stressful event**

- **Medications such as lithium, beta blockers, antimalarials, NSAIDS or strong topical corticosteroids.**

Health conditions associated with psoriasis

- **Inflammatory arthritis “psoriatic arthritis” and spondyloarthropathy (in up to 40% of patients with early onset chronic plaque psoriasis)**
- **Inflammatory bowel disease(Crohn`s disease and ulcerative colitis)**
- **Uveitis (inflammation of the eye)**
- **Coeliac Disease**
- **Metabolic Syndrome**
- **Type II Diabetes**



"Well, I think we're all finally in agreement —
That is one funky rash!"

Fungal infections of the skin

- ▶ Yeast infections
- ▶ Candida

Dermatophyte infections

- ▶ Tinea infections
- ▶ Tinea barbae (fungal infection of the beard)
- ▶ Tinea capitis (fungal infection of the scalp)
- ▶ Tinea corporis (fungal infection of the trunk and limbs)
- ▶ Tinea cruris (fungal infection of the groin)
- ▶ Tinea incognito (steroid-treated fungal infection)
- ▶ Tinea pedis (fungal infection of the foot)
- ▶ Kerion (fungal abscess)

Treatment of fungal infections

- ▶ Oral antifungal medications
- ▶ Topical antifungal medications

Differential diagnosis of fungal infections

- ▶ Athletes foot (rash between the toes)
- ▶ Cradle cap (pityriasis capitis, infantile seborrhoeic dermatitis of scalp)
- ▶ Intertrigo (body fold rashes)

Fungal nail infections



Fungal nail infections



Fungal nail infections

- ▶ Fungal infection of the nails is known as onychomycosis. It is increasingly common with increased age. It rarely affects children.
- ▶ Which organisms cause onychomycosis?
- ▶ Onychomycosis can be due to:
- ▶ Dermatophytes such as *Trichophyton rubrum* (T rubrum), *T. interdigitale*. The infection is also known as tinea unguium.
- ▶ Yeasts such as *Candida albicans*.

Nail clippings to confirm diagnosis of onychomycosis

- ▶ Clippings should be taken from crumbling tissue at the end of the infected nail. The discoloured surface of the nails can be scraped off. The debris can be scooped out from under the nail.
- ▶ Previous treatment can reduce the chance of growing the fungus successfully in culture so it is best to take the clippings before any treatment is commenced:
- ▶ To confirm the diagnosis – antifungal treatment will not be successful if there is another explanation for the nail condition.
- ▶ Treatment may be required for a prolonged period and is expensive. Partially treated infection may be impossible to prove for many months as antifungal drugs can be detected even a year later.

Treatment of onychomycosis

- ▶ **Fingernail infections are usually cured more quickly and effectively than toenail infections.**
- ▶ **Mild infections affecting less than 50% of one or two nails may respond to topical antifungal medications but cure usually requires an oral antifungal medication for several months. Combined topical and oral treatment is probably the most effective regime.**
- ▶ **Medications only suitable for dermatophyte infections**
- ▶ **Terbinafine(Lamisil) 250 mg od for 3-6 months.**

Oral antifungal medications

- ▶ Oral antifungal medications may be required for a fungal infection if:
- ▶ It is extensive or severe.
- ▶ It resists topical antifungal therapy.
- ▶ It affects hair-bearing areas (tinea capitis and tinea barbae).
- ▶ The choice of oral antifungal medication, its dose and the duration of treatment depends on:
- ▶ The type of fungus i.e. candida, dermatophyte (tinea, mallasezia)
- ▶ The site affected i.e. skin, mucosa, nails.
- ▶ Other co-existing diseases.
- ▶ Interactions with other medications.



"He's here to give you a second, cooler opinion."

Granuloma Annulare



Granuloma Annulare

- ▶ Granuloma annulare (GA) is a common skin condition in which there are smooth discoloured plaques. They are usually thickened and ring-shaped or annular in shape. Granuloma annulare is more correctly known as necrobiotic papulosis. There are several clinical patterns.
- ▶ Who gets granuloma annulare?
- ▶ Granuloma annulare affects the skin of children, teenagers or young adults (or older adults, less commonly).



Search: 29610044

"I wish you would have come to see me sooner..."

Lichen Planus



Lichen planus of scalp and nails



Lichen Planus

- ▶ Lichen planus is a chronic inflammatory skin condition affecting skin and/or mucosal surfaces.
- ▶ Lichen planus affects about one in one hundred people worldwide, mostly affecting adults over the age of 40 years.
- ▶ About half those affected have oral lichen planus, which is more common in women than in men.
- ▶ About 10% have lichen planus of the nails.

What causes Lichen planus

- ▶ Lichen planus is a T cell-mediated autoimmune disease, in which inflammatory cells attack an unknown protein within skin and mucosal keratinocytes.
- ▶ Contributing factors to lichen planus may include:
- ▶ Genetic predisposition
- ▶ Physical and emotional stress
- ▶ Injury to the skin; lichen planus often appears where the skin has been scratched— Koebnerisation
- ▶ Localised skin disease such as herpes zoster
- ▶ Systemic viral infection, such as hepatitis C
- ▶ Contact allergy, such as to metal fillings in oral lichen planus (rare)
- ▶ Drugs, gold quinine, quinidine and others can cause a lichenoid rash

What is the treatment for lichen planus?

- ▶ Treatment is not always necessary. Local treatments for symptomatic cutaneous or mucosal disease are:
- ▶ Potent topical steroids
- ▶ Topical calcineurin inhibitors such as pimecrolimus and tacrolimus
- ▶ Topical retinoids
- ▶ Intralesional steroid injections
- ▶ Systemic treatment for widespread or severe local disease often includes a 1–3 month course of oral prednisolone while commencing another agent from the following list:
- ▶ Acitretin, Hydroxychloroquine, Methotrexate, Azathioprine, Phototherapy

Lichenoid Drug Eruption

- ▶ Lichenoid drug eruption refers to a lichen planus-like rash caused by medications. Asymptomatic or itchy; pink, brown or purple; flat, slightly scaly patches most often arise on the trunk. The oral mucosa (oral lichenoid reaction) and other sites are also sometimes affected. Many drugs can rarely cause lichenoid eruptions. The most common are:
 - ▶ Gold
 - ▶ Hydroxychloroquine
 - ▶ Captopril
 - ▶ Quinine and thiazide diuretics cause photosensitive lichenoid drug eruption.

What is the outlook for lichen planus?

- ▶ Cutaneous lichen planus tends to clear within a couple of years in most people, but mucosal lichen planus is more likely to persist for a decade or longer.
- ▶ Spontaneous recovery is unpredictable, and lichen planus may recur at a later date.
- ▶ Scarring is permanent, including balding of the scalp.
- ▶ Lichenoid drug eruptions clear up slowly when the responsible medication is withdrawn.

Oral Lichen planus



Oral Lichen Planus

- ▶ The mouth is often the only affected area. Oral lichen planus often involves the inside of the cheeks and the sides of the tongue, but the gums and lips may also be involved. The most common patterns are:
- ▶ Painless white streaks in a lacy or fern-like pattern
- ▶ Painful and persistent erosions and ulcers (erosive lichen planus)
- ▶ Diffuse redness and peeling of the gums (desquamative gingivitis)
- ▶ Localised inflammation of the gums adjacent to amalgam fillings



"If people keep getting under your skin, perhaps I should refer you to a dermatologist."

Common Scalp Problems

- ▶ Scalp Psoriasis
- ▶ Seborrhoeic Dermatitis
- ▶ Fungal infection – Tinea Capitis
- ▶ Head Lice
- ▶ Eczema
- ▶ Folliculitis
- ▶ Telogen effluvium
- ▶ Alopecia areata
- ▶ Discoid lupus erythematosus

The End !



"THERE IS NOT A THING THAT MEDICAL SCIENCE
CAN DO FOR YOU. HAVE YOU TRIED WISHFUL THINKING?"