PALMOPLANTAR PUSTULOSIS

What are the aims of this leaflet?

This leaflet has been written to help you understand more about palmoplantar pustulosis. It tells you what this condition is, what it is caused by, what can be done about it, and where you can find out more about it.

What is palmoplantar pustulosis?

Palmoplantar (palmo meaning palm of the hand, plantar meaning sole of the foot) pustulosis is a persistent (chronic) condition which causes blisters filled with fluid on the palms and the soles of the feet. It can sometimes occur with the skin condition psoriasis.

What causes palmoplantar pustulosis?

Palmoplantar pustulosis is an auto-inflammatory disease but the exact cause of the condition is still not fully understood.

It is a form of psoriasis and up to 24% of patients also have psoriasis on other body parts. Some people with palmoplantar pustulosis also have family members with psoriasis.

Smoking is one of the most important precipitating factors for the development of palmoplantar pustulosis and studies show that up to 95% of people with the skin condition smoke or once did.

Several other reasons are known which make some people more likely than others to be affected; these include metal sensitivities (mainly nickel), infections, trauma, stress, and some medications. Some psoriasis treatments known as TNF-alpha antagonists may occasionally trigger palmoplantar pustulosis. However, many other treatments for psoriasis do improve palmoplantar pustulosis.

Who gets palmoplantar pustulosis?

Anybody can get palmoplantar pustulosis, but it is more common in women than in men and is rare in children. Those with family members who have palmoplantar pustulosis or psoriasis are more likely to be affected. It is more common in people who have other autoimmune conditions such as arthritis, diabetes, thyroid disorders or coeliac disease.

Is palmoplantar pustulosis hereditary?

Palmoplantar pustulosis can run in families, but most patients have no other affected family members.

What are the symptoms of palmoplantar pustulosis?

The skin of the palms and/or soles can be very itchy and painful, particularly if there are deep cracks in the skin (fissures). The condition is persistent, but the symptoms can vary, becoming better and worse over time, often with no obvious cause.

What does palmoplantar pustulosis look like?

Often the inflammation of the skin of the palms and soles is symmetrical, but it can occur on just one side. In flare-ups the skin is red, with tiny blisters filled with yellow/white liquid (pustules) and eventually, these turn brown and become scaly. In the more persistent stage the skin can be dry and thickened and develop painful cracks (fissures). It can also affect one or more nails causing them to become thicker, discolour, develop ridges and pitting and sometimes separate from the nail bed.

How will palmoplantar pustulosis be diagnosed?

In most cases, the diagnosis is made by a doctor after taking a history and by simply looking at a person's skin. As a fungal infection can look very similar, it can be helpful for a doctor to take a painless skin scrape to check for this. A painless swab of the fluid inside the pustules may be taken to rule out a bacterial infection. Sometimes, a small biopsy may be needed to confirm the diagnosis. This requires a local anaesthetic injection into an affected area and the removal of a small piece of skin to look at under the microscope. This is followed by stitches to close the wound, after which the area should heal with a small scar.

Is palmoplantar pustulosis serious?

Although the condition is not cancerous or contagious, the inflammation of the palms and soles can severely affect one's quality of life. It can be painful and itchy making it

hard for one to walk comfortably or to use their hands without pain; possibly affecting sleep, work and activities of daily living.

Can palmoplantar pustulosis be cured?

No. Like many skin conditions, palmoplantar pustulosis cannot be cured. There are, however, several treatment options which can improve it significantly. Basic principles of good skin care can help to reduce the frequency and severity of symptoms (see below).

What is the treatment for palmoplantar pustulosis?

There are several different treatment options ranging from creams to phototherapy (UV light treatment in the Dermatology Department) to tablets, and it is individualised to the patient depending on the severity of their condition. It is not unusual for the treatment to change over time, as the condition is longstanding.

Creams and Ointments:

- Moisturisers should be applied several times a day to prevent dryness and itching of the skin and to act as a barrier. These can be prescribed or bought over the counter. Greasier ointments are advised for most people.
- Steroid creams and ointments reduce inflammation in the skin. They are stronger and more effective when applied under occlusion (under a cover), for example under a waterproof dressing, vinyl gloves or cling film. Unfortunately, the skin can get used to steroids, so that they may have less benefit if applied continuously. The potential side effect of skin thinning rarely occurs when steroid creams or ointments are used on the thicker skin of the palms and soles. Steroid impregnated tapes can be very helpful for cracks in the skin (fissures).
- Tar ointments have been used for many decades to reduce inflammation in the skin. They also slow the production of skin cells and help shed cells, so the skin doesn't become too thick. The smell and yellow-brown colour of these greasy ointments limit their use but some patients find them very helpful. They can be used in combined preparations with steroid ointments and salicylic acid.

Light treatment:

- PUVA and re-PUVA are treatments with ultraviolet light A (UVA). The ‘P’ refers to a psoralen, a treatment used before each light exposure to increase the skin’s sensitivity to the UVA light. The psoralen is taken as tablets by mouth or as a lotion or soak applied to the hands and feet. The course of either treatment can take at least 10 weeks with twice weekly treatments at the dermatology department. In re-PUVA, daily retinoid (acitretin) tablets are also taken to improve the benefit of the PUVA and shorten the course of treatment.

Internal (systemic) treatments:
Please see the individual drug information leaflets for further information on these treatments as there are restrictions on these drugs during pregnancy.

Tablets:

- Acitretin is a tablet related to Vitamin A and is one of a group of drugs called retinoids. This can be very effective but is not usually recommended in women of child bearing age as pregnancy must be avoided during treatment and for 3 years after taking it. A newer retinoid called alitretinoin has also been used with some success
- Methotrexate and ciclosporin are also used and both work by reducing the immune response of the body

Injections (Biologic therapies):

- These work by altering the immune system. They are a relatively new treatment for palmoplantar pustulosis and currently only used for patients with very severe disease who are unable to take one of the standard treatments listed above or who have failed to respond to them.

- Other treatments may also be tried, depending on individual circumstances and need. Treatments as part of clinical research may also be available. Your doctor will discuss treatment options with you.

Self Care (What can I do?)

- If you are a smoker, you should try to stop. The benefit to the skin from stopping smoking may not be immediately obvious, but your general health will also benefit. There is help available in the NHS for smoking cessation.
- Don't use soap, bubble bath or shower gel, instead use a moisturising cream or ointment for washing the affected areas. A moisturiser should be applied several times a day to reduce inflammation and dryness.
- Protective gloves should be worn when you work with water and for exposure to chemicals including household cleaning products. Appropriate gloves should also be worn for any gardening or manual labour.
- If possible, rest your sore hands and feet.
- Wear socks and shoes made from cotton or very soft synthetic fibers, as they are better tolerated by inflamed skin. Cotton gloves and socks can also be used

at night over ointments to help reduce transfer of ointment to bed linen. Wool should be avoided as it can be irritant.

- Thickened skin will crack (fissure) more easily. The skin thickness can be reduced by applying of salicylic acid or urea creams (heel balm)
- A podiatrist can offer advice and treatment with foot care.

Where can I get more information about palmoplantar pustulosis?

http://www.skinsupport.org.uk/conditions-details/palmoplantar-pustulosis
http://www.patient.co.uk/doctor/Palmoplantar-Pustulosis-(PPP).htm
http://www.dermnetnz.org/scaly/palmoplantar-pustulosis.html

For details of source materials used please contact the Clinical Standards Unit (clinicalstandards@bad.org.uk).

This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.

This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel

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