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Disseminated superficial actinic porokeratosis

Disseminated superficial actinic porokeratosis, or DSAP, is an inherited skin condition causing dry patches mainly on the arms and legs. DSAP is a special type of inherited "sun spot" and is sometimes confused with solar keratoses, but solar keratoses are more likely to arise on the face and hands. The tendency to DSAP is inherited as an autosomal dominant characteristic, which means on average half of the children of an affected parent will also have the tendency. However a certain amount of accumulated sun exposure and perhaps other factors such as immune suppression are needed to bring this tendency out.

Who gets DSAP?

It appears on the sun-exposed skin of people of European descent. It tends to be more prominent in the summer and may appear less prominent in winter. New lesions have been provoked by ultraviolet light in sun lamps. The average age which patients first notice DSAP is about 35 to 40, and its frequency in affected families increases steadily with age. It is rare in childhood. A locus on chromosome 12 was found to be responsible for DSAP in a Chinese family .

Clinical appearances of DSAP

The DSAP lesion begins as a 1-3 mm conical papule, brownish red or brown in colour and usually around a hair follicle containing a keratotic (scaly) plug. It expands and a sharp, slightly raised, keratotic ring, a fraction of a mm thick, develops and spreads out to a diameter of 10 mm or more. The skin within the ring is somewhat thinned and mildly reddened or slightly brown, but a pale ring may be seen just within the ridge. The ridge itself is sometimes a dark brown. The central thickening usually disappears, but it may persist with an attached scale, follicular plug or central dell. Sweating is absent within the lesions. Sun exposure may cause them to itch. In sunny areas, lesions may be present in very large numbers and may change from a circular to a polycyclic outline (overlapping circles). In less sunny climates patients have fewer lesions. In a few cases, the centre of the area becomes very red or may be covered by thick scale. DSAP mainly affects the lower arms and legs and arises more frequently on the lower legs of women than those of men. The forehead and cheeks are rarely affected and it almost never occurs on the scalp, palms or soles. Development of true skin cancer within a DSAP lesion is very uncommon. However, many patients with DSAP have had significant exposure to the sun and may also have solar keratoses and other forms of skin cancer.

Treatment of DSAP

Unfortunately in our present state of knowledge there is no very satisfactory treatment for DSAP. Over the years we have tried:

Cryotherapy / 5-Fluorouracil cream / Tretinoin cream / Alpha hydroxy acid cream
Calcipotriol ointment / Oral acitretin / Photodynamic therapy

Nothing has proved very effective. Most people settle for just having the larger lesions frozen lightly and returning as necessary for further treatments, using a moisturiser to reduce the dry feeling.

Sun protection

Restriction of sun exposure by wearing long sleeves, skirts or slacks and using sunscreens on the legs and arms is believed to reduce the development of new lesions.