

INFANTS (1 MONTH – 1 YEAR)

From a dermatological point of view, the turbulence of the neonatal period gives way to a relatively quiet period in the infant months, with sleeping and feeding difficulties predominating.



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Hansa enjoys movies, yoga, walking, philosophy and travel, especially to the East.

Some dermatological conditions become particularly troublesome in infants, especially atopic and napkin dermatitis.

ATOPIC DERMATITIS

This intensely itchy condition usually only starts in the infantile period, at about 3 months of age. However, it can begin earlier and is then difficult to distinguish from seborrhoeic dermatitis. A family history of atopy is usual, either atopic dermatitis, asthma or hay fever. The skin is extremely dry, with little improvement with common moisturisers. Inflamed, crusted, eczematous patches (so-called subacute eczema) usually occur on the scalp, face and extensor aspects of the limbs (Fig. 1). Follicular eczema, affecting the hair follicles, occurs on the trunk. The child is irritable and scratches uncontrollably, particularly at night, disturbing sleep. Facial dermatitis can interfere with feeding, as many foods will irritate the affected skin.



Fig. 1. Infantile atopic dermatitis.

Untreated weeping eczema will develop into chronic, lichenified eczema. Atopic dermatitis is essentially a metabolic problem with a defective skin barrier and abnormally high transepidermal water loss, resulting in dry, fissured, scaly skin which is unusually sensitive to external irritants like weather changes, clothing, soaps, creams, detergents, allergens and micro-organisms. All these factors predispose to pruritus and a vicious cycle where scratching becomes one of the major irritants and a habit that is very difficult to break.

Note that allergy plays a relatively minor role, although some authorities emphasise it, whether contact or inhaled or ingested allergy. A radioallergosorbent test (RAST) can be done, and appropriate action taken, but it is seldom helpful for the dermatitis. Treatment is targeted at moisturising, skin cleansing and avoidance of topical irritants. Soap should be avoided in favour of aqueous cream (applied before bathing) or emulsifying ointment (applied during bathing). Baby products are seldom useful. Moisturisers like aqueous cream or emulsifying ointment are applied often, especially after bathing, and any of the dozens of proprietary moisturisers can be used (Epimax, Nutraplus, Oilatum, Epizone A, Cream E45, SBR lipocream and lipolotion, etc). Irritation from clothing is particularly important, and mild detergents like Sunlight or Eco-soft are preferred, but clothes must be thoroughly rinsed. Fabric softeners seem to be non-irritating. Cotton and polyester fabrics are preferred to wool and acrylic.

For inflamed or itchy areas steroid lotions, creams and ointments are still the preferred treatment. Mild steroids such as 1% hydrocortisone (Procutan, Mylocort, Dilucort) can be tried first, but usually a slightly stronger steroid such as hydrocortisone butyrate (Locoid), methylprednisolone aceponate (Advantan) or betamethasone valerate (Betnovate, Lenovate, Persivate) will be needed. These moderate-strength steroids can be diluted 1:2 or 1:4 with a base to cover larger areas. The base chosen depends on the stage of the eczema — weeping, acute and subacute patches are treated with lotions and creams; chronic, dry, lichenified, fissured areas are treated with ointments. Mild and moderate topical steroids appear to be very safe in infants and children. Nevertheless there is great demand for non-steroid treatments, and pimecrolimus cream (Elidel), an immunosuppressant similar to cyclosporin, can be used in children from 2 years with atopic dermatitis as an alternative to topical steroids. Remission periods seem to be longer than with traditional products.

Atopic dermatitis, especially if wet and crusted, is often secondarily infected with *Staphylococcus aureus* and systemic or topical antibiotics are of considerable benefit. Sensible options include cloxacillin, amoxicillin/flucloxacillin, co-amoxiclav or a cephalosporin. There is increasing resistance to erythromycin and other macrolides. The dermatitis can also be secondarily infected with viruses like herpes simplex and molluscum contagiosum. Herpes simplex can cause potentially dangerous spreading skin infections (so-called eczema herpeticum), and systemic antivirals should always be given.

Antihistamines are of limited use in atopic dermatitis, but they are worth trying. Sometimes older, sedating antihistamines are more useful than the newer non-sedating types. Severe atopic dermatitis flares respond well to short pulses of oral steroids, such as prednisolone syrup 0.5 - 1.0 mg/kg/day for 5 - 7 days. Atopic der-

matitis tends to burn out by 3 years of age, but can persist into later childhood, and sometimes remains a life-long affliction.

CONDYLOMATA ACUMINATA

Genital warts in infants are usually due to perinatal transmission, but there may be sexual abuse. Female infants are most affected. Warty papules occur in the groins, on the genitalia or in the perianal region (Fig. 2). The mother is often unaware that she is infected. Treatment is difficult, and entails repeated applications of 10 - 25% podophyllin in TBCO. This is painted on, and baby powder sprinkled to prevent spread to adjacent normal skin. It is washed off 6 - 8 hours later to prevent excessive irritation.



Fig. 2. Infantile condylomata acuminata.

This is repeated at 2 - 4-weekly intervals until all warts have disappeared. More purified podophyllin, podophylo-toxin (Wartec solution), or the immunomodulator imiquimod (Aldara cream) have also been used, but these are not registered for children. Some warts are exceedingly resistant to treatment, and there may be immunosuppression such as HIV infection. An alternative for intractable warts is excision, debulking or electrodesiccation under general anaesthesia. Many genital warts disappear spontaneously.

INFANTILE ACNE

Infantile acne is uncommon, and easily confused with much commoner conditions in neonates and infants such as erythema toxicum, miliaria, milia, seborrhoeic dermatitis and prominent sebaceous glands. True infantile acne, seen mostly in boys, consists of comedones, inflamed papules and pustules, predominantly on the cheeks, chin and

nose (Fig. 3). Occasionally cysts develop, but the condition is usually mild and self-limiting. Treatment consists of astringent lotions like toners, together with benzoyl peroxide lotions, gels or creams in more severe cases.



Fig. 3. Infantile acne.

The presence of infantile acne might portend more serious acne later in life.

INFANTILE ACROPUSTULOSIS

This affects mostly black male infants between the ages of 2 and 10 months and resolves spontaneously by 2 - 3 years of age. Intensely itchy 1 - 2 mm pustules occur on the palms and soles, and also on the dorsal aspect of the hands and feet (Fig. 4). Lesions do not occur elsewhere on the body, and this distinguishes the condition from scabies, which it closely resembles.



Fig. 4. Infantile acropustulosis.

It is refractory to treatment with topical steroids, but responds to low doses of dapsone, e.g. 25 mg on alternate days. The cause is unknown, but it might be a persistent hypersensitivity to previous scabies.

MONGOLIAN SPOT

Congenital macular blue-grey pigmentation 2 - 8 cm in diameter in the sacral region (Fig. 5) is commonly found in normal Asian (90%) and black infants, but is uncommon in whites. The pigmentation occasionally involves other parts of the back, and usually disappears spontaneously in childhood. The birthmark arises from dendritic dermal melanocytes of neural crest origin.



Fig. 5. Mongolian spot.

NAPKIN DERMATITIS

This is a form of irritant contact dermatitis caused by prolonged, occluded contact of skin with urine and faeces. Good-quality disposable napkins have reduced the frequency and severity of the condition. Children with a tendency to atopic dermatitis are more likely to suffer from napkin dermatitis, which presents with glazed erythema, papules, pustules and erosions on convex surfaces covered by the napkin. The depths of flexures are often unaffected because the irritants do not penetrate (Fig. 6). Itching and discomfort can be considerable, and napkin changing can be traumatic. Secondary bacterial and candidal infection is common.

Treatment involves prompt, thorough, but gentle cleansing of soiled areas

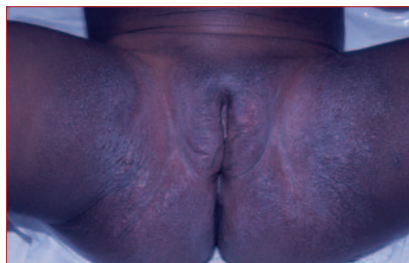


Fig. 6. Napkin dermatitis.

with wet cotton wool, followed by complete drying by leaving the napkin off for as long as practical. A mild steroid ointment such as 1% hydrocortisone, together with an anticandidal preparation like nystatin ointment, is applied several times daily to inflamed areas. Topical or systemic antibiotics are added as necessary, and mupirocin ointment (Bactroban) is useful because it has antibacterial and anticandidal actions. Proprietary mixtures like Dakta-cort cream can also be used. Once the inflammation has subsided, a barrier cream or ointment like Vaseline or one of many zinc oxide preparations (Fissan paste, Bennet's bum cream, etc.) is applied after each napkin change to prevent recurrence. Napkin dermatitis can mimic other dermatoses of the napkin area such as seborrhoeic dermatitis, psoriasis and intertriginous candidiasis. These will all tend to involve the flexures as well as the covered convexities.

SCABIES

Infestation with the mite *Sarcoptes scabiei* causes an intensely itchy papulovesicular eruption after an incubation period of several weeks. Contact is usually from another family member. Classically, the web spaces of the hands, sides of the fingers, flexor aspect of the wrists and ankles, anterior axillary folds, nipples, periumbilical areas, genitalia and feet are involved. The infant is often irritable and uncomfortable, and there are excoriations, crusts, papules, vesicles, pustules and linear lesions known as burrows (Figs. 7 and 8). Secondary eczematization and impetiginisation can mask the primary lesions. The soles are often involved, and the face can be affected. Under direct microscopy utilising saline or potassium hydroxide (KOH)

solution, the adult mites, eggs or faecal pellets might be seen in skin scrapings. However, treatment is often empirical, with negative scrapings. Benzyl benzoate lotion (Ascabiol) diluted 1:2 or 1:3 with water, is preferred, but is irritating. This is applied after bathing to the entire skin from the neck down, left on for 24 hours, and repeated twice. All household contacts should also be treated, using undiluted benzyl benzoate for older children or adults, and diluted lotion for younger children. Linen and clothing should be washed and dried in the sun. Alternatives include esdepallethrin spray (Spregal) applied to the entire skin surface from the neck down overnight and repeated in 1 week, 5% sulphur ointment applied bd for 3 - 5 days and crotamiton cream (Eurax) applied daily for 3 - 5 days. Scabies can be complicated by persistent itchy nodules, especially in flexures and on the genitalia, even after successful treatment. These nodules are treated with potent topical steroid creams and eventually resolve.

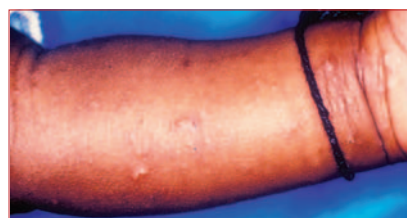


Fig. 7. Scabies.



Fig. 8. Scabies.

SEBORRHOEIC DERMATITIS

This dermatitis of traditionally greasy areas of skin (scalp, eyebrows, face, chest, back) usually manifests in the neonatal or early infantile period, before three months of age (see article on neonates — pp. 488 - 491).