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It looks like childhood eczema but is it**?**

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Abstract

In childhood the most common type of eczema/dermatitis is atopic dermatitis, which occurs in up to 25% of children worldwide. However, the diagnosis may sometimes be challenging and atopic dermatitis may resemble other types of dermatitis as well as other skin diseases such as psoriasis, infections, infestations and malignancies as well as metabolic, genetic and autoimmune disorders. This review will focus on how to recognize the most common types of dermatitis in children and adolescents and how to separate them from the most common differential diagnoses clinically and histologically.

Introduction

From Greek the name eczema is “the result of” (-ma) of “boiling” (-ze) “over” (ec-). The word dermatitis is generally thought to be a translation of an ancient Greek word meaning inflammation of the skin. In general these words are used synonymously. Dermatitis is a non-infectious inflammatory skin disease with typical clinical manifestations and with pathologic changes in the epidermis and dermis. Atopic dermatitis and contact dermatitis are the classical types of dermatitis. However, other types of dermatitis should be recognized based on additional clinical features such as seborrheic dermatitis and nummular dermatitis. Clinically, the main features depend on the acuteness of the dermatitis/eczema: non-sharply delineated erythema, papules, vesicles, oozing and crusting characterize acute eczema, whereas in more chronic lesions, reactive epidermal changes such as lichenification, excoriation and scales dominate; both features may be present in subacute eczema. The clinical presentation of dermatitis depends upon the patient's age, disease activity and type of dermatitis and has to be distinguished from other differential diagnosis including other dermatosis, infections, infestations and malignancies as well as metabolic, genetic and autoimmune disorders. The pathology of a biopsy may be an important clue to the diagnosis. A biopsy allows distinguishing dermatitis from other diseases, whereas it is quite similar to all dermatitis types and does not allow to determine the dermatitis subtype. The pathology of dermatitis shows in the acute stage marked epidermal spongiosis (intercellular edema) with or without vesicle formation, in subacute dermatitis an epidermal acanthosis and parakeratosis as well as a superficial dermal perivascular lymphohistiocytic infiltrate, and in the chronic stage pronounced epidermal acanthosis, hyperkeratosis, hypergranulosis and often tissue eosinophilia. In this review we will focus on how to recognize the most common types of eczema/ dermatitis and how to separate them from the most common differential diagnoses clinically and histologically (Table 1, Table 2, Figure 1). The focus will be on children and adolescents.

Dermatitis/eczema

Atopic dermatitis

Atopic dermatitis is one of the most common skin disorders. The lifetime prevalence worldwide varies between 0.2% and 25%, highest in the Northern part of Europe (1, 2). The disease most often starts in early childhood and persist into adult life in up to 50% of affected patients (3).
Atopic dermatitis is a chronic or chronically-relapsing dermatitis characterized by pruritus, a typical morphology and distribution of skin lesions, and a personal or family history of atopic disease. Traditionally, the Hanifin & Rajka criteria has been used for the diagnosis (4). However, today the validated UK working party criteria is mostly applied (5)(Table 3). They consist of one main and five minor features. The main feature is; an itchy skin condition meaning that itch has to be present. The minor criteria are; onset below 2 years of age, history of flexural involvement, history of generally dry skin, personal/family history of other atopic diseases or visible flexural dermatitis. If at least the major and three minor criteria are fulfilled, the diagnosis is atopic dermatitis.
Atopic dermatitis typically constitute of three phases: The infantile phase from 0-2 years of age (Table 2), the childhood phase between 2 and 12 years of age and the adolescent or adult phase. The typical locations during the infantile phase are the face and extensor sides of the extremities, whereas during childhood the flexural involvement dominates. The skin lesions in adults more frequently involve the hands, head and neck. However, the localisation and extent varies considerably and there is some overlap between age groups. The dermatitis may be acute or chronic. Features of acute flare-ups include intensively itching erythema and often excoriations. Papules, vesicles, oozing and crusting can be seen. The more chronic features are lichenification and prurigo papules. A cardinal feature is xerosis – meaning persistently dry, scaly skin in a generalized distribution, which is caused by the impaired skin barrier function including loss-of-function mutations in the filaggrin gene (6). Associated clinical features ("stigmata") are the Dennie-Morgan lines, palmoplantar hyperlinearity, pityriasis alba, white dermographism and cheilitis. Concomitant ichthyosis vulgaris and keratosis pilaris can be seen. Different variants of atopic dermatitis can be seen, such as the follicular type often seen in Asian patients. This type is characterized by plaque-shaped, lichenoid, scaly dermatitis and skin-coloured follicular papules, mainly on the lateral aspects of the trunk. Patients with dark skin type often suffer from a papulonodular form of atopic dermatitis with post-inflammatory hyperpigmentation (7).
Complicating and exacerbating factors in atopic dermatitis include infections with *Stapholycoccus Aureus* (impetigo), poxvirus (molluscum contagiosum), *Herpes Simplex Virus* (eczema herpeticum), and *Malassezia Furfur* (adolescents/adults with head-and-neck dermatitis), food allergy, inhalant allergy, contact allergy and environmental factors. The patients are in higher risk of developing food allergy, asthma, allergic rhinitis and hand eczema (8). In small children, a strong association between food allergy and atopic dermatitis exists. A Danish population based study, evaluating children from birth to 6 years of age, has shown that 15% of children with atopic dermatitis had a concomitant food allergy and almost all children with food allergy had concomitant atopic dermatitis (9).

Allergic contact dermatitis

The prevalence of allergic contact dermatitis seems to be increasing in children and adolescents probably caused by an increasing exposure to contact allergens in early life (10). The diagnosis of allergic contact dermatitis is based on the dermatitis pattern, exposure history and a clinical relevant positive patch test. It is estimated that the overall prevalence of contact allergy/sensitization (positive patch test) in unselected children and adolescents is around 13-23% while the prevalence of allergic contact dermatitis (i.e. positive patch test with clinical relevance) is around 7% (11, 12). Allergic contact dermatitis is localized on contact allergen- exposed skin areas (Table 2), for example facial dermatitis in case of reaction to cosmetic ingredients, dermatitis on the feet in case of reaction to materials in footwear (e.g. chromate in bleached leather), belly region or earlobes in nickel allergy, and with an air-born pattern in plant dermatitis (13). As the morphological appearance of allergic contact dermatitis and atopic dermatitis can be identical, it may be difficult to differentiate these eczema entities clinically. However, in allergic contact dermatitis the specific localization as well as the history of a specific exposure of an allergic substance to the area can give the clue and the criteria for atopic eczema described above are normally not met. The most common allergens in children and adolescents are metals, fragrances, preservatives and coloring dyes (10).
Atopic dermatitis patient may develop concomitant allergic contact dermatitis. To get the clue of a concomitant allergic contact dermatitis in a child with atopic dermatitis the history is important together with the dermatitis pattern. Suspicion is high, if the child with atopic dermatitis got an unusual location of the dermatitis and do not respond to therapy. Children with moderate to severe atopic dermatitis seem to be at highest risk, and typically react to components in topical products (14). It is very important to remember that allergic contact dermatitis in young children is not rare, and should be considered when children with recalcitrant eczema are encountered.

Besides allergic contact dermatitis, contact dermatitis can also manifest as toxic/ irritant contact dermatitis. The irritant contact dermatitis is a non-allergic inflammatory reaction of the skin caused by an external agent such as detergents. It is most often localized on the hands, often in patients with atopic dermatitis and often occupational related. It is most prevalent in adolescents and adults.

Seborrheic dermatitis

Seborrheic dermatitis is an important differential diagnosis to infantile atopic dermatitis. The diagnosis is based on the history and clinical examination including the distribution of eczema. Infantile seborrheic dermatitis most often starts within the first three months of life, i.e. before the typical age of onset of atopic dermatitis. It almost always involves the diaper area and the scalp and face (15)(Table 2). Disseminated lesions may be seen (face, neck, trunk, proximal extremities) including a psoriasiform seborrheic dermatitis. Compared to atopic dermatitis, the diaper area is often spared in atopic dermatitis, whereas the face and scalp can be involved in both diseases. Infantile seborrheic dermatitis may persist for months but usually disappears by one year of age compared to the chronic/chronic-intermittent course of atopic dermatitis. Compared to atopic dermatitis the lesions tend to be less inflamed and the scales more greasy. In atopic dermatitis pruritus, irritability and sleep disturbance are seen while infant with seborrheic dermatitis generally are undisturbed by their skin symptoms. Furthermore, the family history of atopic disease is a key

point in atopic dermatitis. However, the two diseases can be difficult to separate and may occur concomitantly in infancy.

Nummular dermatitis

Nummular dermatitis is characterized by coin-shaped usually sharply demarcated plaques, often localized on the extremities. Pruritus, crusts and excoriations are prominent. The nummular lesions in children and adolescents are mostly seen as a feature of atopic dermatitis, as opposed to adults where it is a distinctive, independent form of eczema.

Asteatotic dermatitis

Asteatotic dermatitis is also called eczema craquelé and is basically eczema caused by dry skin, and typically associated with low relative humidity, use of detergents and too much bathing. It is quite rare in childhood and adolescence, but mostly seen in elderly patients, due to age-dependent changes in skin barrier and lowered lipid content. Asteatotic dermatitis usually first arise on the shins and may spread. The skin is dry, scaly and inflamed with superficial cracking.

Other chronic dermatosis

Psoriasis

Psoriasis can appear at any age, but has two peaks; one in adolescence and one in adulthood. Compared to atopic dermatitis the prevalence is much lower in children (0.7-1.2%) (16). In general it is often straightforward for the clinician to distinguish psoriasis from eczema. In children and adolescents guttate psoriasis is the most common form often preceded by an upper respiratory infection. Here, the lesions are small (< 10mm) sharply demarcated papules and plaques typically symmetrically distributed on the torso. The prognosis in children/ adolescents with this form is typically excellent, with a spontaneous remission over months. The most common type of psoriasis overall is plaque psoriasis characterized by sharply demarcated plaque with erythema, thickening and silvery scales on the elbows, knees and scalp. Nummular and guttate elements may also be present. Nails may be involved (pitting, onycholysis). The patient may suffer from psoriatic arthritis. As for adult psoriasis, pediatric psoriasis has recently been associated with obesity, metabolic syndrome, increased waist circumference percentiles, and metabolic laboratory abnormalities, warranting early monitoring and lifestyle modifications (16). Psoriasis can be distinguished from dermatitis (Table 2) by larger silvery scales, a sharp demarcation, stronger induration of lesions, other localizations (knees, elbows, scalp) and associated manifestations (nail, arthritis). The pathology of a biopsy may be needed, showing acanthosis with elongation of rete ridges, parakeratosis without hyperkeratosis and neutrophils in parakeratotic scale.

Lichen simplex chronicus

This condition is rare among children and adolescents. The clinical picture is characterized by lichenified, thickened, dry and itching skin elements caused by scratching and rubbing. Predisposing factors are xerosis and atopy. In contrast to dermatitis, lichen simplex chronicus is limited to one smaller area of the skin.

Infections and infestations

Scabies

Infestation with the mite Sarcoptes scabiei will manifest with intense pruritus 2-3 weeks after infestation. It is an important differential diagnosis to atopic dermatitis due to the intense pruritus, especially at night, but also due to the skin manifestation with erythematous papular lesions often with excoriations. The typical sites of scabies are interdigital areas, flexural aspects of the wrist, feet, and ankles (17). In adolescence the disease can be sexually transmitted and localized in the genital area. The diagnosis is made by isolation of the mite from the burrows (Table 2). The burrows represent the tunnel that the female mite excavates while laying eggs. They are often waxy, gray-white 0.2-0.4 mm in length. Children and adolescents with atopic dermatitis more easily develop scabies infection due to the defect in skin barrier function. If an untypical “eczema” is characterized also by papules and burrows, involves interdigital areas, the flexural wrist, feet, ankles or genial area and is especially itching during the night, the real diagnosis may be scabies. The diagnosis is normally confirmed by visualization of the mites in the burrow by dermatoscopy, alternatively by extracting the mite out of the burrow with a needle tip and inspecting the scale under a microscope.

Dermatophytoses

Dermatophytoses are fungal infections caused by antropophilic or zoophilic fungi, and separate from opportunistic yeast species (Candida, Malassezia furfur). Clinical dermatophytosis manifest as tinea corporis (Table 2), cruris, faciei, capitis and pedis (18). Depending on the location different differential diagnoses are pertinent e.g. tinea capitis can be a differential diagnosis to seborrheic dermatitis, tinea corporis to atopic dermatitis or allergic contact dermatitis. The incubation is typically 1-3 weeks. The infection typically spread centrifugally with central clearing, typically resulting in annular lesions of varying sites. Most lesions are scaly with an active border. Associated symptoms include pruritus and burning. The diagnosis is suspected in non-symmetric annular scaling lesions with a pronounced outer border and confirmed by detection of fungi in microscopic examination and culture or polymerase chain reaction (PCR).

Virus exanthem

On a population level, the most common cause of an exanthem is a viral infection, particularly in children (19). Traditionally, six classic infectious exanthems have been described, i.e. measles (measles virus infection), scarlet fever (group A streptococcus infection), rubella (rubella virus

infection), erythema infectiosum (syn. slapped cheek / fifth disease; parvovirus B19 infection), and exanthema subitum (syn. Roseola infantum; HHV-6 infection).
Non-specific viral exanthems are the most common type of exanthems in children characterized by erythematous papules and maculae in a widespread distribution on the trunk and extremities (Table 2). In contrast to eczema, exanthems appear suddenly, are disseminated symmetrically with smaller lesions, which may sometimes confluate to patches and in the initial phases do not scale, rather than the diffuse not well-demarcated larger scaling areas typical for eczema. In the histopathology, viral inclusion bodies and interface dermatitis may be found. Associated symptoms may be low-grade fever, headache, rhinorrhea and gastrointestinal complaints. Multiple virus may cause non-specific exanthems including enterovirus, adenovirus and RS virus. Although virus typically gives rise to an exanthem, a child with fever and systemic symptoms should always be evaluated for bacterial infection.

Hand-foot and mouth disease

Classic hand, foot, and mouth disease (HFMD) is a self-limiting clinical condition with papulovesicles only on the palms and soles and oropharyngeal blisters usually affecting small children (Table 2). The reported causative agents are coxsackievirus A16 and enterovirus 71. Atypical manifestations of HFMD in children with atopic dermatitis may mimic herpetic superinfection (20). Recently, atypic presentations of HFMD has been described with erythematous papulovesicles extend beyond the palms, feet, and mouth (21). The diagnosis is based on the clinical picture and a swab of vesicle fluid for PCR analysis can confirm enterovirus infection. It can be differentiated from the chronic dermatosis by its typical clinical manifestation, the course and involvement of the mucosal membranes.

Unilateral laterothoracic exanthema

This eruption is characterized by its unique unilateral distribution and most often starts in axilla and at the lateral trunk. It is morbilliform or eczematous in nature and tend to spread to the contralateral area but maintains the unilateral predominance. The exanthema is often preceded by an upper respiratory or gastrointestinal infection. The disease lasts 3-6 weeks and then resolves spontaneously.

Gianotti –Crosti syndrome

Gianotti–Crosti syndrome (infantile papular acrodermatitis) can be seen in children below 14 years of age, but mainly affects small children between two months and two years. It is often preceded by an upper respiratory infection. It is characterized by monomorphous, skin-colored to pink-red small papules symmetrically on the face, buttocks and extensor sides of the extremities, but without the larger scaling patches typical for eczema. The trunk is usually spared. Occasionally vesicles may be seen. The syndrome is regarded as a self-limiting cutaneous response to an infection, typically hepatitis virus and EBV (22).

Metabolic and genetic disorders

Ichthyosis vulgaris

Ichthyosis vulgaris is the most common type of ichtyosis and caused by a mutation in the filaggrin gene (FLG)(23). As opposed to many other subtypes of ichtyosis, ichthyosis vulgaris is usually not present at birth but starts within the first few months. The typical clinical manifestations include dry skin with fine, white scales, often without any erythema (Table 2). Pruritus and eczematous lesions may appear and then the condition can be difficult to separate form atopic dermatitis. One may question whether the eczematous lesions of ichthyosis vulgaris actually are atopic dermatitis, as around one third of all patients with atopic dermatitis are heterozygous for mutations in the FLG gene and since the presence of mutations in the FLG gene increases the risk of atopic dermatitis.

Netherton syndrome

Netherton syndrome is an autosomal recessive disorder caused by a mutation in the SPINK5 gene (24). At birth the newborn may presents with an erythrodermic ichtyosis. In older children the disease is characterized by a distinctive dermatitis, ichthyosis linearis circumflexa, where the skin lesions are spread in a serpiginous or circinate linear pattern with double-edge scales. Plaques may be on the trunk and extremities. The lesions are pruritic and many develop eczematous plaques and lichenification in the folds. The dermatitis can be difficult to separate from atopic dermatitis, as the children often have elevated IgE and food allergy. The clue is often that the parent report the child is unable to grow long hair, and clinically the hair is brittle and sparse. It easily breaks and is characterized by trichorrhexis invaginata (bamboo hair), that can be verified by microscopic examination. Mild development delay and short stature may be present.

Zinc deficiency- acrodermatitis enteropatica

Acrodermatitis enteropatica can occur in a genetic form (autosomal recessive) and an acquired form (due to deficient intake)(25). It is characterized by erythematous patches and plaques with crusting and erosions (Table 2). In contrast to eczema, the lesions are predominantly in the periorificial and acral areas. Often the infants have other manifestations such as diarrhoea, alopecia and failure to thrive. The diagnosis is clinical together with measurement of serum zinc alkaline phosphase and often a skin biopsy. A prompt clinical response and clearance of skin lesions after zinc substitution is the rule. Premature children have a higher risk of developing zinc deficiency.

Autoimmune disorders

Lupus erythematosus

Lupus erythematosus cutaneous most often affect women between 20-50 years. The acute form with a butterfly rash and lesions with mild erythema is usually associated with systemic disease. The lesions of lupus erythematosus may show fine scales, but are not itching, are well-demarcated and may have an annular ring.

Neonatal lupus erythematosus can be seen among children born by mothers with SSA or SSB antibodies (26). The clinical features are an erythematous rash with scaling, most often around the eyes ("raccoon eyes"). This diagnosis is important to recognize, since potentially severe extracutaneous complications, including congenital heart block, hepatobiliary disease and thrombocytopenia may occur.

Dermatomyositis

Dermatomyositis may present in a juvenile form (27), affecting children between 5 and 15 years. The cutaneous eruption may mimic atopic dermatitis, but is located in the face (heliotrope erythema of upper eyelids) and extensor joint surfaces and has a typical violaceous colour. Concomitant clinical and laboratory signs of proximal extensor inflammatory myopati, as well as histological changes (skin, muscle) can further differentiate.

Primary immunodeficiencies

Hyper IgE syndromes

Hyper IgE syndromes (HIES) are rare primary immunodeficiencies (autosomal dominant or recessive form) associated with severe eczema, recurrent infections of the skin (*Staphylococcus aureus*) and often pneumonias, and very high serum IgE levels. The disease typically presents during the first months of life. The eczema has many clinical features in common with atopic dermatitis including pruritus, lichenification and *S. aureus* superinfections (28). Cutaneus *S. aureus* infection in HIES not only includes impetigo but also furunculosis and abscesses. Besides *S. aureus*, *Candida albicans* infections are seen. Some patients have only cutaneous manifestations, however, most develop recurrent bronchitis and pneumonias usually caused by *S. aureus* and *haemophilus influenza*. HIES differs from atopic dermatitis by the clinical triad of high serum IgE (>2000 IU/ml), recurring staphylococcal skin abscesses, and recurrent pneumonia with formation of pneumatoceles. In addition, patients show a characteristic distinctive facial appearance with rough skin, facial asymmetry, prominent forehead, broad nasal bridge, fleshy nasal tip and prognathism.

Wiscott-Aldrich syndrome

Onset of Wiskott-Aldrich-Syndrome is mostly in infancy and seldomly during the neonatal period. Although skin lesions resembling atopic dermatitis are typically present, the first clinical manifestations are usually hemorrhagic lesions with petechiae, bruising, purpura, epistaxis, oral bleeding, or bloody diarrhea. In addition to the microthrombocytopenia, patients also have airway, gut or skin infections and an increased risk for autoimmune manifestations (e.g. hemolytic anemia) and malignancies, such as B-cell lymphomas.

Omenn syndrome

Omenn syndrome is a rare severe combined immunodeficiency syndrome becoming apparent during the first year of life. Clinically it is characterized by erythroderma (potentially resembling eczema) and often resulting in eyebrow and eyelash alopecia, but more specifically also with chronic diarrhea, pneumonitis, failure to thrive, lymphadenopathy, and hepatosplenomegaly, which distinguish it from atopic dermatitis.

Malignancies

Histiocytosis

Langerhans cell histocytosis (histocytosis X, Letterer-Siwe disease) is a severe, multisystem disease that nearly always develop prior to age of 2 years. The cutaneous manifestation is typically with papules, pustules or vesicles in the scalp, flexural areas and trunk. Scale and crust with secondary infection can occur. The clinical picture may mimic atopic dermatitis and seborrheic dermatitis. One should think of histiocytosis, if a "diaper rash" or "seborrheic dermatitis" does not respond to topical anti-inflammatory therapy. A skin biopsy confirm the diagnosis and differentiate this from atopic dermatitis. The severity of the disease ranges from mild cutaneous disease to systemic disease with affection of lung, liver, lymph node, and bone (29).

Cutaneous T-cell lymphomas (mycosis fungoides)

This is a rare disease most commonly seen in older adults, however, may very rarely occur in children and adolescents (30). The clinical picture may have an appearance similar to psoriasis or nummular eczema in the early stages (Table 2). However, these early lesions are a few to several, sharply demarcated, oval or round, minimally scaling, non-indurated patches, which can be itching and characteristically show a fine wrinkling reminiscent for atrophy. A biopsy should be taken, if the lesions do not respond to topical anti-inflammatory therapy.

Drug exanthema

The most frequent drug manifestation is the maculopapular exanthem (Table 2). Maculopapular exanthems usually appear between four and 14 days after a new drug has been started. It appear suddenly and are disseminated with multiple smaller lesions without scaling (in the eruption phase), which distinguishes it clinically from an eczema. Erythematous macules and infiltrated papules are the primary lesions. The trunk and the proximal extremities are most often involved in a symmetric distribution. Whereas in early phases typically no scaling occurs, desquamation is common in the later clearing phase. Mucous membranes are normally not involved. Pruritus is typical. The most common elicitor in children is penicillin. In cases with confluent lesions, the histopathology may be required showing an interface dermatitis and eosinophilia. Seldom, more severe drug reactions may occur with additional blistering, sterile pustules or systemic organ involvement (31). The more severe bullous entities are called Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN). SJS and TEN are considered severity variants of the same disease entity. The lesions in SJS/TEN are macules and flat atypical target lesions that may confluence and on which blisters occur,

leading to skin detachment. Hemorrhagic,crusting erosions of mucous membranes are characteristic and the patients are severely ill. The area of skin detachment is <10 % (as calculated in burns) of the total body surface in SJS, 10-30% in SJS/TEN overlap and > 30% in TEN (31).

Conclusion

Atopic dermatitis is the most common skin disease in childhood and adolescence; however there are many differential diagnoses including other types of dermatitis, skin dermatoses such as psoriasis, infections, infestations and malignancies as well as metabolic, genetic and autoimmune disorders. The different types of dermatitis are distinguished by the history, clinical picture, exposure and patch test if allergic contact dermatitis is suspected. A biopsy can be useful distinguishing dermatitis from other skin diseases such as other chronic dermatoses and malignancy. The history and clinical manifestations are the key point for other differential diagnosis together with microscopy, PCR, blood tests and evaluation for extracutaneous organ involvement.

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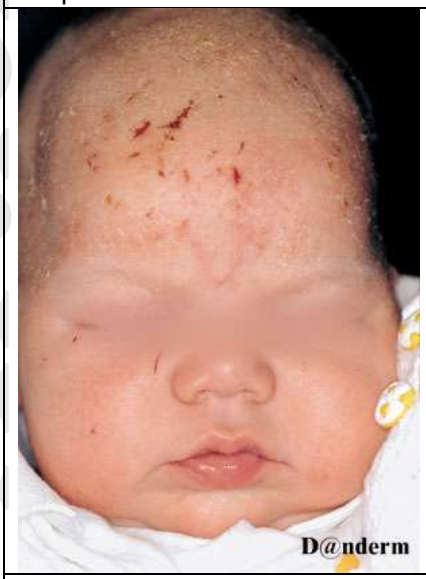
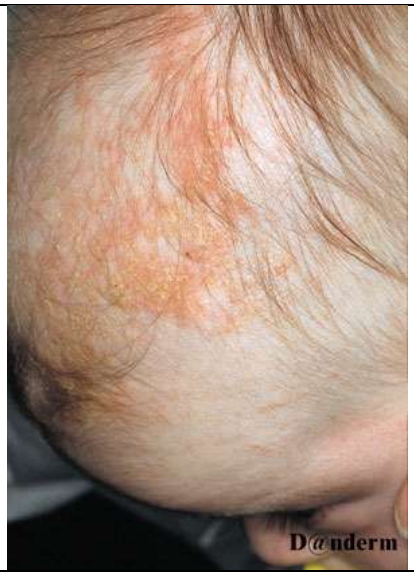
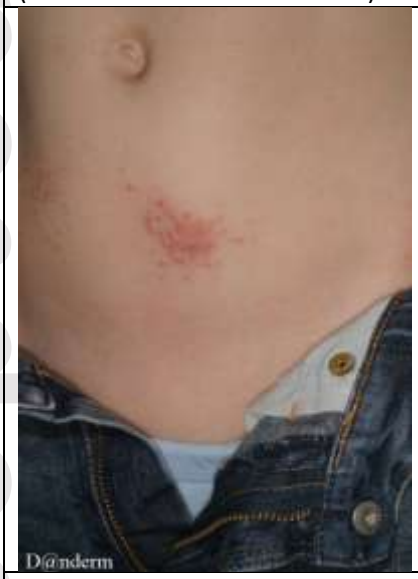
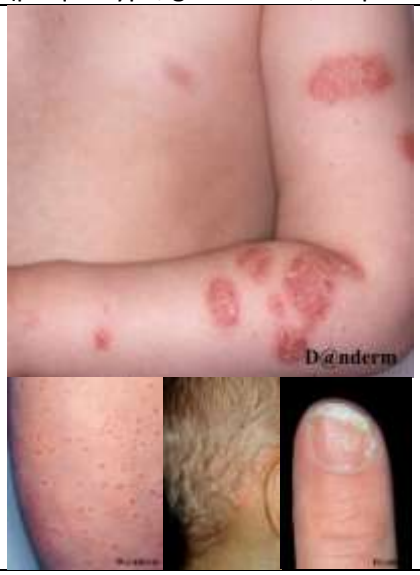
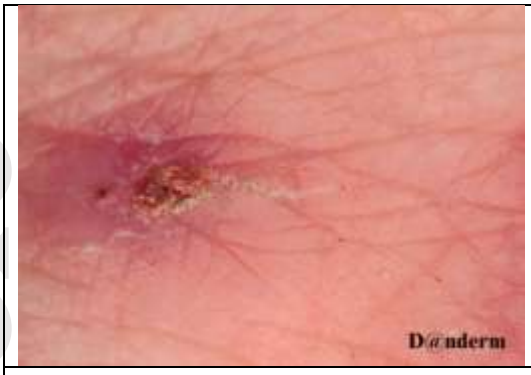
Table 1: Most common types of dermatitis/ eczema among children and adolescents and differential diagnosis

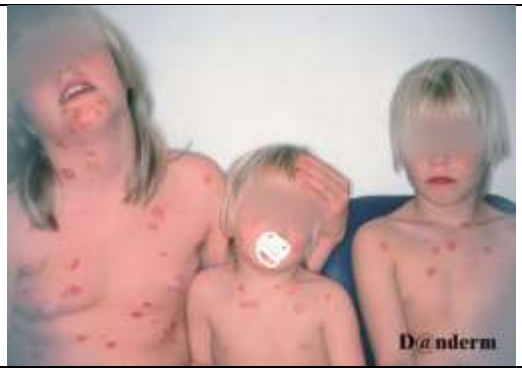
Dermatitis/eczema	Atopic dermatitis Contact dermatitis Seborrheic dermatitis Nummular dermatitis Asteatotic dermatitis
Other chronic dermatoses	Psoriasis Lichen simples chronicus
Infections and infestations	Scabies Dermatophytosis Virus infections
Metabolic and genetic disorders	Netherton syndrome Ichthyosis Acrodermatitis enteropathica
Autoimmune disorders	Lupus erythematosus Dermatomyositis
Primary immunodeficiencies	Hyper IgE syndrome Wiskott-Aldrich syndrome Omenn syndrome
Malignancies	Langerhans cell histiocytosis Cutaneous T-cell lymphomas
Others	Drug eruptions

Table 2: Common types of dermatitis/ eczema among children and adolescents together with important differential diagnosis. The authors would like to acknowledge Professor Niels Veien from Aalborg, Denmark for permission to use the clinical pictures from his online database, Danderm

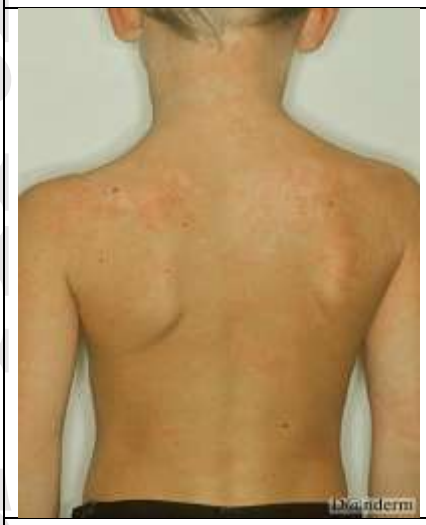
Atopic dermatitis	Seborrheic dermatitis
	
Allergic contact dermatitis (due to nickel in a belt buckle)	Psoriasis (plaque type, guttat form,scalp and nail pitting)
	
Scabies including the burrows	Dermatophytosis



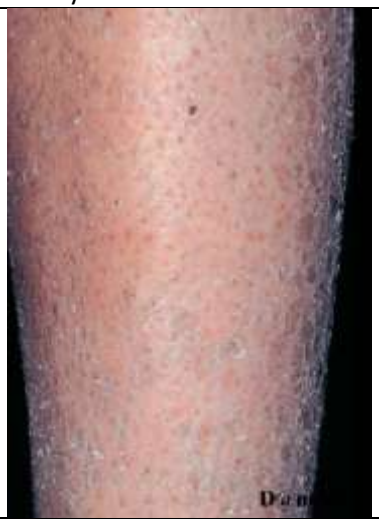
Viral exanthema



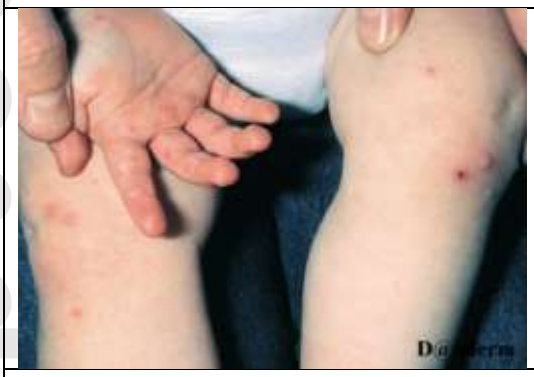
Ichthyosis



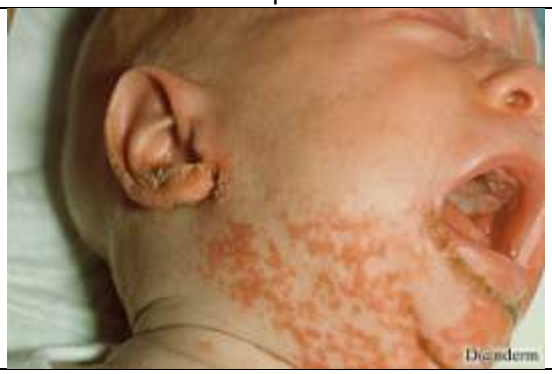
Hand-foot-mouth disease



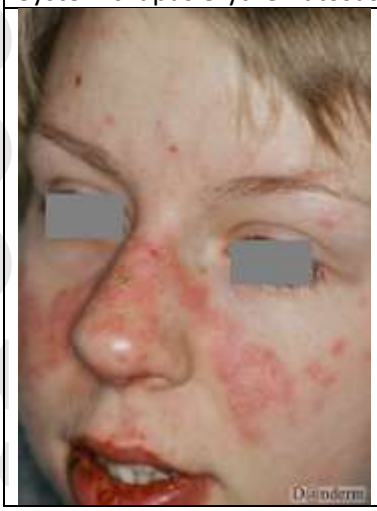
Acrodermatitis enteropathica

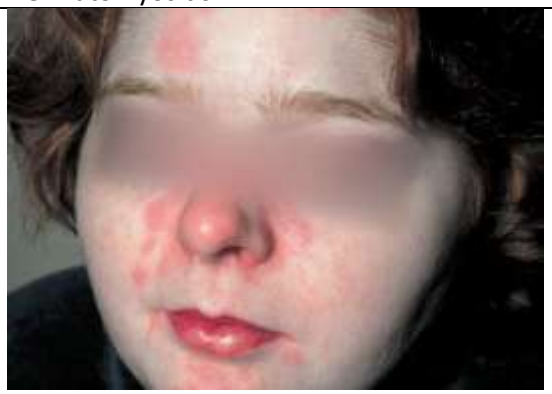


Systemic lupus erythematosus



Dermatomyositis





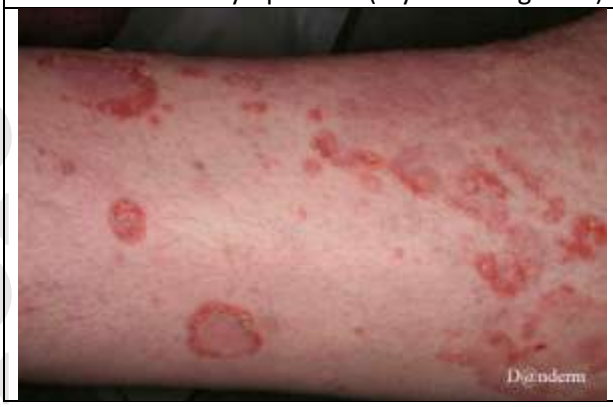
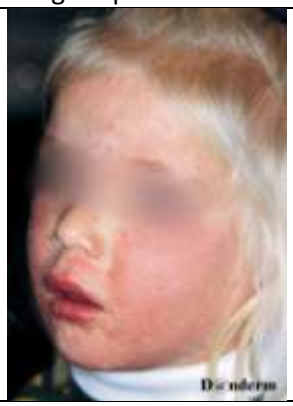
Cutaneous T-cell lymphomas (mycosis fungoides)	Drug eruption
	

Table 3: The UK refinement of the Hanifin and Rajka diagnostic criteria for atopic dermatitis (reference 5)

In order to qualify as a case of atopic eczema with the UK diagnostic criteria, the child:

Must have:
An itchy skin condition in the last 12 months

Plus three or more of:

i. Onset below age 2*
ii. History of flexural involvement
iii. History of a generally dry skin
iv. Personal history of other atopic diseases**
v. Visible flexural dermatitis as per photographic protocol

* not used in children under 4 years
** in children aged under 4 years, history of atopic disease in a first degree relative may be included

Figure 1. Algorithm for diagnosing dermatitis/eczema and most important differential diagnosis