

Atopic Dermatitis in the First Six Months of Life

E. BONIFAZI and C. L. MENECHINI

Department of Dermatology, University of Bari, Italy

1 476/2 320 of our cases of atopic dermatitis (AD) start in the first six months of life. The diagnosis is usually easy, but at this age it is sometimes more difficult, mainly because of lack of or rare evidence of scratching, but also because of the brief clinical history that does not allow observation of the characteristic chronic and relapsing course. Moreover, the major atopic disorders—asthma, rhinitis—usually appears later in the natural history of atopic subjects. From a differential diagnosis point of view, AD is the most definite dermatological disorder at this age. Other not well defined conditions occurring in the first six months of life are usually referred to as infantile seborrheic dermatitis, a name that has been used for at least four different disorders: cradle cap, cradle cap with involvement of inguinal, axillary and retroauricular folds, napkin psoriasis and Leiner's erythroderma. From a clinical point of view, AD in the first months of life is characterized by the prevalence of exudating lesions; moreover, the lack of or the rare evidence of scratching allows us to observe isolated vesicular lesions that are found with difficulty in the further course of the disease.

Most cases of atopic dermatitis start in the first six months of life (Table I). The diagnosis of AD is usually easy even though at this age some difficulties arise due to the lack of or rare evidence of scratching and for the brief clinical history that does not allow observation of the characteristic chronic and relapsing course, and moreover, the lack of association with the major atopic disorders, such as asthma and rhinitis, that usually appear later in the natural history of atopic subjects. Asthma occurs in 11% of our cases with atopic dermatitis; in these cases the mean age of onset of asthma is 3.6 years, whereas the mean age of onset of AD is 6 months. This is why asthma occurs in only 5% of our AD patients aged less than 6 months.

From a differential diagnosis point of view, AD is the most definite dermatological disorder in the first six months of life. Other not well etiologically defined conditions occurring at this age are usually referred to as infantile seborrheic dermatitis, a name that has been used for at least four different disorders: cradle

cap, cradle cap with involvement of inguinal, axillary and retroauricular folds, napkin psoriasis and Leiner's erythroderma.

The so-called cradle cap is characterized by white-yellowish squamous lesions of the scalp and glabellar region, usually starting in the second month of life and lasting for a period of 4-12 weeks. The differential diagnosis with atopic dermatitis is based on the lack of itching, exudating lesions and involvement of the cheeks. However, about 30% of cases of AD starting in the first months of life, involve, often primarily, the scalp with lesions resembling seborrheic dermatitis. This is why some authors (1) believe that seborrheic dermatitis does not exist and can be considered as a mild type of AD.

We do not know if the frequent mild scaling of the scalp can be considered a very mild AD, but certainly many cases of scaling dermatitis of the scalp, especially when the scalp is extensively involved, are followed by typical atopic dermatitis. In these cases it is often possible to observe exudating lesions under the ear lobes or on the forehead or a mild scaling of the legs.

The second condition which has been included in the spectrum of seborrheic dermatitis, is a disease involving the scalp with squamous lesions and the inguinal, axillary and retroauricular regions with exudating lesions. This condition usually persists for a few months; sometimes it is more persistent and becomes a typical inverted psoriasis, a condition usually associated in children with atopic diathesis.

The third disorder which has been considered by

Table I. Age of onset of atopic dermatitis in 2 320 cases

1 month	427	4 years	64
2 months	299	5 years	26
3 months	448	6 years	26
4 months	121	7 years	4
5 months	100	8 years	9
6 months	81	9 years	4
7-12 months	226	10 years	13
1-2 years	332	11 years	4
2-3 years	128	12 years	8

Table II. Diaper rash and napkin psoriasis. Age of onset

	Diaper rash	Napkin psoriasis
1 month	65	32
2 months	21	12
3 months	17	7
4 months	9	2
5 months	14	7
6 months	9	5
7-12 months	27	7
1-2 years	12	3
2-3 years	9	2

some authors as seborrheic dermatitis is the so-called napkin psoriasis. The initial lesions are characteristically located in the diaper area and persist in this region for a period of weeks or months. After this period, secondary lesions tend to appear suddenly. They develop first and sometimes exclusively on the face, then on the trunk and limbs. Initially, the secondary lesions are modest in size but with time they spread centrifugally, sometimes completely covering the skin surface. Lasting 4-12 weeks, the lesions disappear and do not reoccur, even when diaper rash relapses.

Some authors include this disorder in the spectrum of seborrheic dermatitis. We do not know exactly what seborrheic dermatitis is, but most authors state that this disorder occurs in the first four months of life, mainly involving the scalp with squamous yellow lesions. On the contrary, diaper rash with secondary eruption occurs at any age in the first two years of life

Table III. First localization in 2320 cases of AD (%)

Early = in the first 6 months of life, late = after 6 months

	Early onset	Late onset
Face	79	54
Scalp	12	
Hands	3	12
Groin	2	2.5
Lower limbs	2	6
Trunk, neck	0.5	2
Limb folds	0.5	18
Upper limbs	0.5	1.5
Retroauricular	0.3	3
Generalized		1

Table IV. Type of lesions in 2320 cases of AD (%)

	Early ^a	Late ^b
Exudating	49	22
Eryth-squamous	27	28
Erythematous	11	11
Impetiginized	7	1
Vesicular	3	3
Nummular	1	5
Papulo-vesicular	1	7
Infiltrated	1	5
Eczema-like		10
Lichen-like		6
Pompholyx-like		1

^a In the first 6 months.

^b After 6 months.

(Table II) and, when the scalp is involved, the lesions, at least initially, are papular in type and isolated.

Napkin psoriasis should be differentiated from generalized atopic dermatitis. AD exceptionally starts in the diaper area. During the course of AD the diaper area is involved in only 20% of cases, in spite of the well-known irritant capacity of urine and feces. In these cases the lesions in the diaper area are usually transient and less erythematous than at other sites. On the other hand, in 80% of subjects with atopic dermatitis, the diaper area is surprisingly spared, even though the entire skin surface is involved.

The fourth condition which has been included in the spectrum of seborrheic dermatitis is Leiner's erythroderma. This condition was more frequent in the past, maybe due to the use of irritants such as tar: in fact we observed 20 cases from 1971 to 1982 and only two cases in the last 6 years. It is usually observed in the first 2 months of life, it lasts 15-30 days and do not reoccur. 10/22 patients with Leiner's erythroderma were revisited after an average period of 8 years. Five children had not had any further skin problem. The other 5 had had minor problems such as minimal AD (4 cases), psoriasis-like eruption (1 case), bullous pyoderma (1 case), vesiculo-papular acrodermatitis (1 case) and papular urticaria (1 case). In one case of Leiner's erythroderma we could observe a previous diaper rash and, subsequently, a secondary eruption with initially isolated erythematous lesions becoming confluent and entirely covering the skin surface in one day. Possibly this condition is the most severe type of napkin psoriasis.

From a clinical point of view, all the sites may be involved in the first six months of life (Table III), the

lesions on the face and scalp usually being the first localization of the disease.

AD in the first six months of life is characterized by the prevalence of exudating lesions; moreover, the lack of or rare evidence of scratching allows us to observe isolated, initial papulo-vesicular lesions that are found with difficulty in the further course of the disease.

Table IV shows that exudating and impetiginized lesions are more frequent in the first 6 months of life, whereas infiltrated, lichen-like and nummular lesions are rare at this age.

REFERENCE

1. Rajka G. Some clinical remarks on atopic dermatitis. *Pediat Dermat News* 1983; 2: 11-14.