

Table of Contents

1	History and Nomenclature	1
1.1	History	1
1.2	Nomenclature	2
	References	3
2	Clinical Aspects	4
2.1	Prevalence	4
2.1.1	Worldwide Distribution	6
2.1.2	Sex Incidence	7
2.2	Course	7
2.2.1	Onset, Phases, and Morphological Characteristics	7
2.2.2	Infantile Phase	8
2.2.3	Childhood Phase	10
2.2.4	Adolescent/Young Adult Phase	11
2.2.5	Onset at Elder Age	12
2.3	Prognosis	12
2.3.1	Phases and Prognostic Problems	12
2.3.2	Cases Healed After the Infantile Phase	13
2.3.3	Clearing of the Disease	14
2.4	Basic Clinical Features	16
2.4.1	Primary Trait	16
2.4.2	Prurigo	17
2.4.3	Lichenification	18
2.4.4	Eczematous Lesions	19
2.4.5	Correlation Between Itch and Major Features	20
2.5	Morphology and Distribution	21
2.5.1	Sites of Predilection	21

2.5.2	Head and Face	22
2.5.3	Body	23
2.5.4	Hands	23
2.5.5	Feet	25
2.6	Other Essential Features	26
2.6.1	Dry Skin	26
2.6.2	Photosensitivity	27
2.7	Special Clinical Types	28
2.7.1	Follicular Type	28
2.7.2	Inhalative (Hand) Eczema	28
2.8	Correlations Between Distribution and Pathomechanism	28
2.9	Complications Caused by Living Agents	28
2.9.1	Staphylococcal Infections	29
2.9.2	Viral Infections	31
2.9.3	Dermatophytosis and Candida	33
2.9.4	Scabies and House Dust Mite	33
2.9.5	Pityrosporon Orbiculare	34
2.10	Complication of the Malfunctioning Immunomechanisms	34
2.10.1	Atopic Erythroderma	34
2.10.2	Some Types of Cutaneous Lymphoma	34
2.10.3	Alopecia Areata and Vitiligo	34
2.11	Other Complications	35
2.11.1	Atopic Cataract	35
2.12	Associated Conditions; Proven Correlations	35
2.12.1	Atopic Correlations	35
2.12.2	Bronchial Asthma	36
2.12.3	Atopic Rhinoconjunctivitis	37
2.12.4	Oral Symptoms	38
2.12.5	Gastrointestinal Symptoms	38
2.13	Xerosis-Ichthyosis Group	39
2.14	Probable Correlations	41
2.14.1	Drug Reactions of the Immediate Type	41
2.14.2	Systemic Diseases (Related to Impaired Cell-Mediated Immunity)	41
2.14.3	Certain Types of Urticaria	43
2.15	Possible Correlations	44
2.15.1	Some Genetic Disorders with Eczematous Lesions	44

2.15.2	Adult Celiac Disease/Dermatitis Herpetiformis	44
2.15.3	Other Conditions	44
2.16	Coexistence of AD with Common Skin Diseases	46
	References	46
3	Itch	56
3.1	Short Survey	56
3.1.1	Itch and Pain	57
3.1.2	Mediator of Itch	57
3.1.3	Nonchemical Stimuli	59
3.1.4	Itch and Late Cutaneous Reactions	60
3.2	Role of Itch in AD	61
3.2.1	Itch as the Essential Symptom of AD	63
	References	66
4	Histopathological and Laboratory Findings	70
4.1	Histopathological Findings	70
4.2	Laboratory Findings	71
	References	72
5	Pathomechanism: Genetic and Immunological Factors	74
5.1	Genetic Factors	74
5.1.1	Mode of Inheritance	74
5.1.2	Transmission of IgE and Other Features	76
5.1.3	Practical Consequences for the Clinician	78
5.2	Atopic Allergens	78
5.2.1	General Remarks	78
5.2.2	Skin Testing	80
5.2.3	Inhalants: Pollen	85
5.2.4	Inhalants: Animal Hair	86
5.2.5	Inhalants: Human Dandruff	87
5.2.6	Inhalants: House Dust and House Dust Mites	88
5.2.7	Inhalants: Molds	89
5.2.8	Other Inhalants	95
5.2.9	Inhalants Eliciting Contact Reaction	95

5.3	Foods	96
5.3.1	General Remarks	96
5.3.2	Food Reactivity	98
5.3.3	Frequent Food Allergens	100
5.3.4	Skin Reactivity	102
5.3.5	Challenge Tests	104
5.3.6	Late and Non-IgE-Mediated Food Reactions	105
5.3.7	Concluding Remarks	107
5.4	Other Allergens from Living Agents	108
5.4.1	Staphylococci and Other Bacteria	108
5.4.2	Dermatophytes and Candida	110
5.4.3	Scabies Mite, Insects, and Helminths	110
5.5	The Atopic Antibody	111
5.5.1	General Remarks	111
5.5.2	IgE in AD	113
5.5.3	RAST	116
5.5.4	Non-IgE Antibodies	117
5.5.5	Evaluation of Immediate Type Skin Reactions	118
5.6	Contact Reactivity	120
5.6.1	Allergic Contact Dermatitis	120
5.6.2	Irritative Contact Dermatitis	123
5.7	Delayed (Tuberculin-Type) Reactivity	124
5.7.1	In Vivo Reactivity	124
5.7.2	In Vitro Reactivity	125
5.7.3	Leukocytes and Monocytes	128
5.7.4	Antigen-Presenting Cells	129
5.7.5	Skin Infiltrate	130
5.7.6	Anti-Infectious Resistance	130
5.7.7	Cell-Mediated Immunity in Respiratory Atopies	131
5.8	Other Reaction Types	132
5.9	Concluding Remarks	133
	References	134
6	Pathomechanism: Cells and Mediators	155
6.1	Mast Cells and Histamine	155
6.1.1	Mast Cells	155
6.1.2	Histamine	156
6.1.3	Histamine Inhibition	157

6.2	Eosinophils and Their Products	158
6.3	Cyclic Nucleotides	159
6.3.1	Introduction	159
6.3.2	Conditions in Atopy/AD	160
6.3.3	Concluding Remarks	162
6.4	Eicosanoids	162
6.4.1	Prostaglandins	163
6.5	Complement	163
6.6	Other Mediators	164
6.6.1	Acetylcholine	164
6.6.2	Kinins	164
6.6.3	Miscellaneous	165
	References	165
7	Pathomechanism: The Altered Skin	172
7.1	Itch	172
7.2	Alteration of Skin Structure and Some Consequences	172
7.2.1	Epidermodermal Changes	173
7.3	Water Exchange	173
7.3.1	Sweat Secretion	174
7.3.2	Transepidermal Water Loss	176
7.3.3	Sebum Excretion	178
7.3.4	Skin Dryness	180
7.4	Paradoxical Vascular Responses	181
7.4.1	White Dermographism	181
7.4.2	Nicotinate Reactions	182
7.4.3	Delayed Blanch and Comments	184
7.4.4	Further Vascular Changes	188
7.5	Other Alterations	189
7.5.1	Pilomotor Reaction	189
7.5.2	Endocrine Alterations	190
7.6	Concluding Remarks	190
	References	191

8	Pathomechanism: Attempt at Synthesis	197
8.1	Animal Models	197
8.2	Attempt at Synthesis	198
	References	201
9	Factors Influencing the Course of AD	203
9.1	Seasonal Dependence	203
9.2	Climatic Factors	205
9.3	Some Environmental Factors	206
9.4	Socioeconomic Environment	206
9.5	Occupation	207
9.6	Psychological Factors	209
9.7	Other Factors	210
9.7.1	Military Service and Sports	210
9.7.2	Hormonal Influences	211
9.7.3	Infections	212
9.7.4	Problems with Schooling in Young AD Patients	213
	References	213
10	Diagnosis and Grading (Severity)	216
10.1	Diagnostic Criteria	216
10.2	Differential Diagnosis	218
10.3	Grading (Severity)	219
	References	221
11	Prophylaxis	223
11.1	Food Avoidance	223
11.1.1	Sensitization in Utero	224
11.1.2	Breast Feeding	224
11.1.3	Avoidance Diets	226
11.2	Inhalant Allergens	228
11.3	Occupational Prophylaxis	229

11.4	Other Measures	230
	References	231
12	Management of AD	235
12.1	Specific and Immunological Therapy	235
12.2	General Measures	237
12.2.1	Climatotherapy	237
12.2.2	Hospitalization	238
12.3	Systemic Therapy	238
12.3.1	Antipruritics	238
12.3.2	Anti-Inflammatory Agents	240
12.3.3	Light Therapy	240
12.3.4	Chromones	241
12.3.5	Essential Fatty Acids	242
12.3.6	Anti-Infectious Agents	242
12.4	Topical Therapy	243
12.4.1	Antipruritics and Tars	243
12.4.2	Topical Corticosteroids	246
12.4.3	Treatment of Acute Eczematous Reaction	248
12.4.4	Measures Against Dryness	248
12.4.5	Antibacterial and Antimycotic Agents	249
12.4.6	Special Points for Infantile Eczema	250
12.4.7	Newer Topical Therapy	251
12.5	Concluding Remarks	252
	References	252
	Subject Index	259