Addressing the average lifespan of skin diseases is critical to good patient care

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Abstract

Dermatology patients routinely ask how long their skin condition may last, yet this critical aspect of their care has not been emphasized in the literature. When a given diagnosis may be self-limited, it is essential that clinicians meet patient expectations by properly discussing the possible time course for resolution. Furthermore, being aware of, and prioritizing the knowledge of the duration of a skin disease can help limit continued exposure to side effects of prescribed treatments once the condition may have self-resolved or remitted.

Keywords: general dermatology, disease lifespan, disease natural history, self-resolving

Introduction

For dermatology patients, the most common category of expectations for an office consultation is in the realm of reassurance and advice [1]. As meeting expectations is a major predictor of patient satisfaction, it is clearly important that we emphasize this aspect of care [2]. Since many skin diseases are self-limited, those afflicted assume their dermatologist is aware of the approximate timetable for the condition's resolution — vital prognostic information, which they expect will be conveyed to them. However, one is hard-pressed to find any references that have addressed this in a systematic form for our specialty.

Another critical reason to study the duration of a skin disease is to periodically re-assess the need for ongoing treatments, and their attendant side effects; we need to minimize such risks when a condition may have naturally resolved or gone into remission. Prime examples are the immunobullous diseases bullous pemphigoid and pemphigus vulgaris, in which iatrogenic infections from immune-suppressive therapies are common [3]. Such vigilance amid the waxing and waning nature of many skin diseases can be a challenge. Maintaining open dialogue with patients about the possibility that their disease has run its course and cautioning them about the risks of continued treatment are paramount. This requires a humble stance and acceptance of the uncertainty inherent to the practice of medicine [4].

Keeping those points in mind, what follows is an introductory summary table with prognostic duration of disease information from a myriad of references that dermatologists may find useful in one document (**Table 1**). By highlighting this critical aspect of many skin conditions, clinicians may better meet patient expectations and possibly reduce their exposure to ongoing treatments when disease resolution has occurred. Moving forward, prioritizing the collection of such timeline data in future clinical studies will expand and clarify knowledge of potentially self-resolving skin diseases and help optimize patient care.

Table 1. *A summary table of skin diseases and their lifespans, divided into general, pediatric, and infectious categories.*

General Diseases	
Acne Vulgaris	64% of patients 20-29 years old and 43% of patients 30-39 years have visible acne. By the age range of 40-49, 3% of men and 5% of women had mild acne [5].
Acute Generalized Exanthematous Pustulosis	Rapid resolution within 1 week of discontinuation of offending drug [6].
Alopecia Areata	92.3% of patient's disease lasted for 0.5–6 months in a study with patients 2-70 years old. Relapses are possible. Another study with children showed 71.7% had the disease for less than 6 months [7].
Aphthous Stomatitis	Minor aphthous stomatitis, defined as ulcers of less than 1 cm diameter, heal within two weeks without scarring. Major aphthous stomatitis, defined as ulcers greater than 1 cm, take longer than two weeks to heal and scar [8].
Bullous Diabeticorum	It usually remits within 5-10 weeks with no complications [9].
Bullous Pemphigoid	The majority of patients experience remission by five years. In a study with 114 patients after one year, 51 were in remission [10, 11].
Bullous Systemic Lupus Erythematosus	Treatment can usually be discontinued at one year without recurrence [12].
Dermatitis Herpetiformis	Patients go into clinical remission in up to 20% of cases [13].
Erythema Annulare Centrifugum	Most cases eventually regress. In a study with 66 patients, the mean duration of disease of 2.8 years. Other authors suggest a wide range of disease duration, ranging from 4-6 weeks to several years, with possible recurrences [14, 15].
Erythema Dyschromicum Perstans	It is thought to resolve in the majority of children within 2-3 years. One study showed that 69% of children experienced resolution over this time frame. Presentation in adults is unlikely to spontaneously resolve [16].
Erythema Multiforme	Most cases are self-limited, resolving within 2-4 weeks [17, 18].
Erythema Nodosum	Most cases spontaneously regress in 3-4 weeks, with more severe cases regressing by 6 weeks [19].
Follicular Mucinosis (Alopecia Mucinosa)	Most cases resolve spontaneously within 2 years. One study that followed 31 children with alopecia mucinosa showed all children had resolved skin lesions with no recurrence at a mean follow up duration of 6.2±3.7 years [20, 21].
Granuloma Annulare	50% of patients with the localized version remit within 2 years [22].
Jessner's Lymphocytic Infiltrate	After several months to years, the disease can spontaneously remit, but relapses are common [23].
Lichen Planus	65% of cases resolve over one year and 89% resolve over two years [24, 25].
Lichen Sclerosis	In children, 25% achieve spontaneous resolution by puberty. In adults, the prognosis is worse [26, 27].
Linear IgA Bullous Dermatosis	64% of children demonstrated remission with a mean disease duration of 3.9 years and a range of 2.1-7.9 years. Active disease only occurred in 12% beyond puberty in these children. 48% of adults showed remission, with a mean duration of 5.6 years and a range of 1-15 years. Drug-induced cases resolve quickly once the causative agent is discontinued [28-31].
Lupus Miliaris Disseminatus Faciei	Spontaneous resolution within 12-24 years [32].
Morphea	Localized morphea tends to involute and regress spontaneously over 3-5 years, demonstrated in a study of 235 cases [33].
Pancreatic Panniculitis	In cases of acute pancreatitis, subcutaneous signs of involvement fade 15-30 days after recovering from acute pancreatitis [34].

Pemphigus Vulgaris	Long lasting remissions were seen in 25%, 50%, and 75% of patients 2,5, and 10 years after diagnosis, however improved long-term remissions may be seen in recalcitrant cases with newer regimens [35, 36].
Pityriasis Lichenoides	75% have a self-limiting course. The median disease duration is 18 months for the acute form pityriasis lichenoides et varioliformis acuta and 20 months for the chronic form pityriasis lichenoides chronica. The healing process can leave short term hypo- or hyper-pigmentation along with scarring [37, 38].
Pityriasis Rosea	It resolves generally over 5 months, with 80% clearing in 8 months. Occasionally, the disease extends to 6 months [39, 40].
Pityriasis Rubra Pilaris	In type I disease, 80% of patients clear within 3 years. In type III disease most commonly affecting children 5-10 years old, clearing may be seen spontaneously within 1 year. Type IV disease has a remission rate of 32% [41, 42].
Reactive Perforating Collagenosis	The lesions tend to spontaneously resolve over 6-8 weeks with some minor scarring [43].
Scleredema	Type 1, which has a preceding fever/antecedent infection, usually self-resolves in a 6 months to 2 years. This type is more prevalent in children [44, 45].
Shulman Syndrome (Eosinophilic Fasciitis)	Spontaneous improvement or complete resolution was seen in patients at 2-5 years of disease duration. Spontaneous remission in patients was seen at rates of 10-20% from the initial presentation or relapse after stopping corticosteroids [46, 47].
Sweet Syndrome (Acute febrile neutrophilic dermatosis)	Lesions can spontaneously remit but the process can take weeks to months [48].
Telogen Effluvium	Hair shedding is usually complete within 3-6 months, and cosmetically significant regrowth takes 12-18 months [49].
Wells Syndrome (Eosinophilic Cellulitis)	Spontaneous resolution occurs within 4-5 weeks, making it difficult to discern resolution from treatment or natural history [50, 51].
Pediatric Diseases	
Acute Hemorrhagic Edema of Infancy	Spontaneous resolution by 1-3 weeks without complications [52].
Asymmetric Periflexural Exanthema	This disease spontaneously resolves within 3-6 weeks [53, 54].
Benign Cephalic Histiocytosis	Lesions completely regress by an average of 50 months [55].
Eosinophilic Pustular Folliculitis of Infancy	It spontaneously resolves in 80% of cases by 3 years of age [56, 57].
Gianotti-Crosti Syndrome (Papular acrodermatitis)	Spontaneous remission is the rule from 10 days-6 months, although cases have been reported over 5 days-12 months [58, 59].
Infantile Hemangiomas	Spontaneous involution phase typically begins around 12-18 months. It occurs in approximately 50 percent of hemangiomas by age five and 90 percent by age nine [60].
Juvenile Plantar Dermatosis	It usually occurs in young boys and resolves spontaneously by puberty [61].
Juvenile Spring Eruption	It usually occurs in young boys and resolves spontaneously by 2-3 weeks [62].
Juvenile Xanthogranuloma	The lesions spontaneously regress over months to years but can leave small atrophic scars [63].
Lichen Nitidus	It usually resolves within a couple years without symptoms [64].
Lichen Striatus	Lichen striatus usually regresses within 6-12 months but sometimes healing takes place over several years [65].
Neonatal Myofibroma (Infantile Myofibrosis)	Most solitary myofibromas spontaneously regress or involute [66].
Solitary Mastocytoma	In a study of 68 untreated children, complete remission was seen in 28 (41%) cases, no changes were seen in 20 (29%), partial improvement was seen in 19 (28%), and worsening was seen in 1

	(2%) case. In another study of 27 patients, 20 (75%) had complete resolution over an average duration of 7.4 years [67-69].
Urticaria Pigmentosa	25 cases were followed up over a duration of 5.1 ± 3.2 years. Nineteen patients (76%) improved, four (16%) were unchanged, one was cured, and one was worsened. Another study showed 35/62 (56%) patients showed complete resolution over a mean of 10.2 years [69, 70].
Infectious Diseases	
Cutaneous Myiasis	Generally self-limited by 5-10 weeks or 8-12 weeks depending on the species, and lesions heal well after emergence of larvae [71].
Erythema Infectiosum (Fifth Disease)	Slapped cheek (phase 1) exanthem fades over 2-4 days, and erythematous maculopapular rash on proximal extremities/trunk (phase two) fades over 1-4 weeks, with relapses from stress, heat, and irritation [72].
Hot Tub Folliculitis	The eruption is self-resolving within 1-2 weeks [73].
Leishmaniasis, Cutaneous	The cutaneous version typically self-resolves over a few years, but treatment is strongly suggested due to scarring. Certain species cause worse disease [74, 75].
Measles, Uncomplicated	Resolution from late prodrome to disappearance of rash and fever takes 7-10 days. In complicated cases, many sequelae are possible [76].
Molluscum Contagiosum	The lesions remit within 6-9 months, with one study showing 95% clearance within 6.5 months [77].
Papular-Purpuric Gloves and Socks Syndrome	This disease is self-limiting, with resolution occurring within 1-2 weeks [54, 78].
Pseudomonal Hot-Foot Syndome	In a study with 40 children, 37 had symptomatic treatment and 3 had oral antibiotics. All improved within 14 days, making this disease self-limited [79].
Roseola Infantum (Sixth Disease)	After a period 3-5 days after a fever, the rash persists for 1-2 days [80].
Rubella	The rash fades in 2–3 days in the same order that it appeared [81].
Scarlet Fever	The rash fades after 6-9 days, which is followed by desquamation on the palms and soles.[82]
Seabather's Eruption	Spontaneous resolution is the rule within 2 weeks [83, 84].
Swimmer's itch (Cercarial Dermatitis)	The lesions disappear in 9-14 days [85].
Tungiasis	Usually by 3 weeks the fleas die and are sloughed off. Full healing takes six weeks to several months after initial penetration [86].
Varicella Zoster	Pustules form within 1 week of the onset. 3-5 days later, they ulcerate and crust. Crusts disappear by 3-4 weeks, but complications are possible [87].
Varicella, Uncomplicated	Rash lesions start crusting by 24-48 hours, and fall off by 1-2 weeks [88].
Warts, Anogenital	One-third of patients cleared by 4 months. After 12 months, the probability of clearance is 71% [89-91].
Warts, Non-Anogenital	Approximately 23% of warts regress spontaneously within 2 months, 30% within 3 months, and 65% to 78% within 2 years, but could last up to 5-10 years. Study on children showed that warts can clear after a few months, half clear at 1 year, and about two-thirds by 2 years [92, 93].

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