

Profile of patients admitted to a triage dermatology clinic at a tertiary hospital in São Paulo, Brazil*

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Abstract: BACKGROUND: Knowledge of epidemiological data on skin diseases is important in planning preventive strategies in healthcare services.

OBJECTIVE: To assess data from patients admitted to a triage dermatology clinic.

METHODS: A retrospective study was performed of patients admitted over a one-year period to the Triage Dermatology Clinic at the Hospital das Clínicas of the University of São Paulo Medical School. Data were obtained from record books. The variables analyzed were: patient age, gender, dermatologic disease (initial diagnosis), origin (from where the patient was referred) and destination (where the patient was referred to).

RESULTS: A total of 16,399 patients and 17,454 diseases were identified for analysis. The most frequent skin disorders were eczema (18%), cutaneous infections (13.1%), erythematous squamous diseases (6.8%) and malignant cutaneous neoplasms (6.1%). Atopic dermatitis was the most common disease in children. Acne was more common among children and adults, as were viral warts. Basal cell carcinoma and squamous cell carcinoma were more common in the elderly. Contact dermatitis and acne predominated in women. The most frequent origins were: the primary/secondary health system (26.6%), other outpatient specialties (25.5%), emergency care (14.9%); while the destinations were: discharged (27.5%), follow-up in our Dermatology Division (24.1%), return (14.1%) and the primary/secondary health system (20.7%).

CONCLUSION: Understanding the incidence of skin diseases is fundamental in making decisions regarding resource allocation for clinical care and research. Thus, we believe our findings can contribute to improving public health policies.

Keywords: Dermatology; Eczem; Epidemiology; Public health; Triage

INTRODUCTION

The skin is the outermost part of the human body and there is a huge variety of skin disorders. However, it is difficult to determine the exact prevalence or incidence of skin diseases due to a lack of epidemiologic studies on the general population. Many skin diseases are treatable but have a detrimental effect on quality of life. Knowledge of these epidemiological data is important in planning therapeutic and preventive strategies in healthcare services.^{1,2}

This is highlighted to a greater or lesser degree in various studies. Penãte *et al.* conducted a study evaluating 3,144 applications for inpatient dermatology consultations at the *Insular de Las Palmas de Gran Canaria* University Hospital, Spain, concluding that

the most frequent diagnoses were: contact dermatitis (8.9%), drug reactions (7.4%), candidiasis (7.1%) and seborrheic dermatitis (5.3%).³

At the *Hospital das Clínicas* of the University of São Paulo Medical School (HCFMUSP), 313 requests for referral to the dermatology division were evaluated; the most frequent diagnostic groups were infectious diseases, eczema and drug reactions.⁴

Inpatient treatment plays a fundamental role in managing complex and severe dermatological diseases. Rapid detection and diagnosis of findings can decrease morbidity, mortality, length of hospital stay and hospitalization costs. As with the data on inpatients, we analyzed the medical records of 3,308 patients

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hospitalized in the dermatology ward at the HCFMUSP for 8 years. Most admittances were for eczematous disease/dermatitis and skin infections.⁵ Bale J *et al.* conducted a survey at a tertiary referral hospital in New South Wales, Australia, examining 97 inpatient admissions in their dermatology unit during 2011. The most frequent reasons for admission were dermatitis or eczema and ulcers; the latter diagnosis accounted for the longest length of stay.⁶

Moreover, it is important to analyze skin disease patterns in the community outpatient setting to discuss strategies and the population's health demands. Some studies have been conducted in different countries based on this approach. In Japan, a nationwide multicentric survey was carried out, leading to the observation that the vast majority of the 67,448 cases evaluated involved miscellaneous eczema, atopic dermatitis and tinea pedis.¹

Brazil has a decentralized public health system divided into three levels of care (primary, secondary and tertiary), in which patients are referenced according to the severity and complexity of the diagnosis.⁷ With this in mind, the General and Didactic Dermatology Clinic (AGDD) – a triage service – was developed at the HCFMUSP. This clinic is used to screen patients at the three different levels. Dermatology residents, medical students and residents of other specialties, supervised by assistant professors and chief residents, provide patient care. This study sought to assess epidemiologic data for patients admitted to the AGDD of the Dermatology Division at the HCFMUSP. The survey was designed as a relevant source of information for evaluating the frequency of dermatologic diseases at a public health service in Brazil.

METHODS

We performed a retrospective study of patients admitted to the AGDD of the HCFMUSP during a period of one year, from January 21st, 2011 to January 21st, 2012.

As a triage clinic, the AGDD experiences significant daily demand. Patients are evaluated and data are gathered in record books. Each patient can have up to three appointments, but most of them can be treated at the first visit. Patients can be referred from: the HCFMUSP's emergency unit, other outpatient specialties at the HCFMUSP or the primary and secondary health systems. Following the consultation, patients can be sent to the primary health system or the secondary health system. Alternatively, they can return for another evaluation at AGDD, follow-up in a specific group at the HCFMUSP's Dermatology Division or be discharged.

Data were obtained from record books. The variables analyzed were: patient age, gender, derma-

tologic disease (initial diagnosis), origin (from where the patient was referred) and destination (where the patient was referred to after the appointment). Initial diagnoses were performed based on anamnesis and clinical signs. Direct microscopies of skin scrapings were carried out for relevant patients. We excluded patients who were on their return visit (repeated subjects) and those whose information regarding gender, age and diagnosis was unclear and/or missing.

Continuous variables were expressed as means with the respective standard deviation (SD). The descriptive analysis of categorical variables was calculated as absolute (n) and relative (%) frequencies. We used two softwares, Microsoft Excel and SPSS 20.0 for MAC, to perform the analyses.

The HCFMUSP's Ethics Committee approved this study.

RESULTS

Demographics

During this one-year period under study, a total of 19,445 appointments were made at the AGDD, with 18,016 patients evaluated. Meanwhile, 302 subjects were excluded due to incomplete data and 1,315 were excluded because of indefinite diagnoses, meaning that the diagnostic hypotheses for the same skin lesion were from different categories of diagnosis, or that patients presented with uncharacteristic skin lesions which hampered the categorization of diagnosis. The remaining 16,399 subjects and their 17,454 diseases were also analyzed. There were 10,364 (63.2%) females and 6,035 (36.8%) males. The average age of subjects was 43.9 years (42.7 for males and 44.5 for females) with a SD of 22.1 (Table 1). The most frequent origins of patients were: the primary/secondary health system (26.6%), other outpatient specialties (25.5%) and Emergency Care (14.9%). Their most common destinations were: discharged (27.5%), follow-up in Dermatology Division of HCFMUSP (24.1%), return (14.1%) and the primary/secondary health system (20.7%).

TABLE 1: Characteristics of patients

Subjects, n	16,399
Diseases, n	17,454
Patient age, years, mean ± SD	43.9 ± 22.1
Gender considering subjects, n (%)	
Female	10,364 (63.2%)
Male	6,035 (36.8%)

SD = standard deviation

Dermatologic diagnosis

All appointments were assigned to one or two of the following 15 categories of diagnosis: eczema, cutaneous skin infections, erythematous squamous diseases, malignant cutaneous neoplasms, benign cutaneous neoplasms, dyschromias, pruritic papular eruptions, nevi, trichosis, folliculosis, connective tissue disorders, nail disorders, asteatosis, other skin diseases and without skin disease. Eczema was the

most frequent (18.1%), and in most cases Non-specified (7.4%), followed by: cutaneous infections (13.1%; mostly superficial mycosis - 6.8%), erythematous squamous diseases (6.8%, primarily psoriasis - 3.5%), miscellaneous malignant skin tumors (6.1%, including basal cell carcinoma (BCC) - 3.8%) and miscellaneous benign skin tumors (6.1%, predominantly seborrheic keratosis - 3.6%) (Table 2).

TABLE 2: Prevalence of skin diseases (n=17,454).

Frequency (n)	Frequency %	Frequency (n)	Frequency %
Eczema	3,153	18.1	
Non-specified eczema	1,301	41.3	
Atopic dermatitis	593	18.8	
Contact dermatitis	476	15.1	
Lichen simplex chronicus	315	10.0	
Others	468	14.8	
Cutaneous infections	2,293	13.1	
Superficial mycosis	1,182	51.5	
Viral warts	372	16.2	
Abscess, furuncle and anthrax	120	5.2	
Molluscum contagiosum	112	4.9	
Others	507	22.1	
Erythematous Squamous Dermatitis	1,197	6.9	
Psoriasis	646	54.0	
Seborrheic dermatitis	363	30.3	
Pityriasis rosea	136	11.4	
Non-specified erythematous squamous dermatitis	24	2.0	
Others	27	2.3	
Malignant cutaneous neoplasms	1,071	6.1	
Basal cell carcinoma	665	62.1	
Squamous cell carcinoma	203	19.0	
Melanoma	106	9.9	
Non-specified malignant cutaneous neoplasms	96	9.0	
Others	1	0.1	
Benign cutaneous neoplasms	1,060	6.1	
Seborrheic keratosis	628	59.2	
Actinic keratosis	291	27.5	
Dermatosis papulosa nigra	38	3.6	
Non-specified benign cutaneous neoplasms	38	3.6	
Others	65	6.1	
Dyschromias	748	4.3	
Vitiligo vulgaris	298	39.9	
Melasma	212	28.4	
Pityriasis alba	98	13.1	
Non-specified dyschromias	82	10.9	
Others	58	7.7	
Without skin disease	620	3.5	
Without skin disease	620	100.0	
		Pruritic papular eruption	620
		Insect bite reactions	232
		Graft-Versus-Host Disease (GVHD)	122
		Lichen Striatus	115
		Lichen nitidus	114
		Others	35
		Nevi	590
		Melanocytic nevi	222
		Melanosis Solar	145
		Non-specified nevi	138
		Ephelis	13
		Others	72
		Trichosis	587
		Alopecias areata	173
		Androgenic alopecia	103
		Telogen effluvium	90
		Non-specified trichosis	82
		Others	139
		Folliculosis	556
		Acne	433
		Rosacea	103
		Dermatitis perioralis	20
		Connective Tissue Disorders (Fat, Muscular or Neural)	530
		Soft fibroma/acrochordon	157
		Keloid	152
		Lipoma	83
		Dermatofibroma	56
		Others	83
		Nail Disorders	417
		Non-specified nail disorders	158
		Onicocriptosis	103
		Chronic Paronychia	89
		Onychodystrophy	46
		Others	21
		Asteatosis	365
		Asteatosis/Xerosis	365
		Others	3,647
		Others	3,647

Skin disorders according to gender

The most prevalent diagnoses we found in males were: mycosis (8.0%), non-specified eczema (7.6%), BCC (4.6%), atopic dermatitis (4.1%), psoriasis (4.0%), seborrheic keratosis (3.1%), without skin disease (2.9%), seborrheic dermatitis (2.7%), acne (2.6%), viral warts (2.3%) and lichen simplex chronicus (2.3%). Among females, the most common were: non-specified eczema (7.3%), mycosis (6.0%), without skin disease (3.9%), seborrheic keratosis (3.9%), BCC (3.4%), psoriasis (3.3%), contact dermatitis (3.1%), atopic dermatitis (3.0%) acne (2.4%) and asteatosis (2.1%) (Table 3).

Skin disorders according to age group

Age groups were defined according to World Health Organization criteria (0-18 years for children; 19-60 years for adults; and over 60 years for the elderly).

The most common skin disorders in children were: atopic dermatitis (17.2%), acne (6.2%), non-specified eczema (5.8%), superficial mycosis (3.7%) and viral warts (3.6%). In adults, they were: non-specified eczema (7.7%), superficial mycosis (7.2%), psoriasis (4.1%), without skin disease (3.8%) and contact dermatitis (3.7%). Finally, in the elderly, they were: BCC (9.8%), seborrheic keratosis (8.8%), non-specified eczema (7.8%), superficial mycosis (7.7%) and actinic keratosis (4.7%) (Table 4).

Skin disorders according to destination

The main skin disorders that resulted in follow-up at the HCFMUSP's Dermatology Division were: BCC (14.5%), squamous cell carcinoma (4.5%), non-specified eczema (4.2%), superficial mycosis (2.8%) and psoriasis (2.5%).

TABLE 3: Main disorders according to gender

Female	10,961	62.8	Male	6,493	37.2
Non-specified eczema	801	7.3	Superficial mycosis	519	8.0
Mycosis	657	6.0	Non-specified eczema	493	7.6
Without skin disease	428	3.9	Basal cell carcinoma	298	4.6
Seborrheic keratosis	427	3.9	Atopic dermatitis	266	4.1
Basal cell carcinoma	372	3.4	Psoriasis	259	4.0
Psoriasis	361	3.3	Seborrheic keratosis	203	3.1
Contact dermatitis	340	3.1	Without skin disease	189	2.9
Atopic dermatitis	328	3.0	Seborrheic dermatitis	175	2.7
Acne	264	2.4	Acne	168	2.6
Asteatosis/xerosis	231	2.1	Viral warts	149	2.3
Viral warts	221	2.0	Lichen simplex chronicus	149	2.3
Actinic keratosis	221	2.0	Contact dermatitis	136	2.1
Melasma	187	1.7	Asteatosis/xerosis	129	2.0
Vitiligo vulgaris	187	1.7	Vitiligo vulgaris	112	1.7
Seborrheic dermatitis	187	1.7	Squamous cell carcinoma	104	1.6
Residual lesions	164	1.5	Folliculitis	92	1.4
Lichen simplex chronicus	164	1.5	Nummular eczema	86	1.3
Melanocytic naevi	164	1.5	Pruritus	86	1.3
Urticaria	153	1.4	Epidermal cysts	86	1.3
Pruritus	142	1.3	Actinic keratosis	78	1.2
Solar melanosis	132	1.2	Stasis dermatitis	72	1.1
Epidermic cysts	132	1.2	Urticaria	65	1.0
Nail disorders	120	1.1	Residual Lesions	65	1.0
Acrochordon	109	1.0	Onicocriptosis	65	1.0
Alopecia areata	110	1.0	Alopecia areata	65	1.0
Squamous cell carcinoma	98	0.9	Drug reactions	65	1.0
Pityriasis rosea	98	0.9	Keloid	65	1.0
Nevi	88	0.8	Melanocytic nevi	65	1.0
Dyshidrosis	88	0.8	Abscess, furuncle and anthrax	50	0.8
Others	3,989	36.4	Others	2,143	33.0

TABLE 4: Most common skin disorders according to age group

Child (0 - 18 years)	2,846	16.3	Adult (19 - 59 years)	9,714	55.7	Elderly (>60 years)	4,894	28.0
Atopic dermatitis	490	17.2	Non-specified eczema	748	7.7	Basal cell carcinoma	481	9.8
Acne	176	6.2	Superficial mycosis	697	7.2	Seborrheic keratosis	431	8.8
Non-specified eczema	165	5.8	Psoriasis	394	4.1	Non-specified eczema	384	7.8
Superficial mycosis	105	3.7	Without skin disease	373	3.8	Superficial mycosis	377	7.7
Viral warts	104	3.6	Contact dermatitis	360	3.7	Actinic keratosis	232	4.7
Vitiligo vulgaris	91	3.2	Acne	251	2.6	Without skin disease	169	3.5
Molluscum contagiosum	87	3.0	Seborrheic dermatitis	213	2.2	Asteatosis/Xerosis	165	3.4
Psoriasis	82	2.9	Lichen simplex chronicus	200	2.0	Squamous cell carcinoma	161	3.3
Pityriasis alba	81	2.8	Melasma	197	2.0	Psoriasis	143	2.9
Without skin disease	76	2.7	Viral warts	191	2.0	Lichen simplex chronicus	101	2.1
Insect bite reactions	66	2.3	Seborrheic keratosis	186	1.9	Pruritus	89	1.8
Seborrheic dermatitis	61	2.2	Basal cell carcinoma	180	1.9	Seborrheic dermatitis	88	1.8
Contact dermatitis	56	2.0	Vitiligo vulgaris	171	1.8	Stasis dermatitis	85	1.7
Alopecia areata	53	1.9	Urticaria	169	1.7	Epidermal cysts	79	1.6
Nummular eczema	51	1.8	Asteatosis/Xerosis	162	1.7	Viral warts	77	1.6
Melanocytic nevi	44	1.6	Residual Lesions	158	1.6	Non-specified malignant cutaneous neoplasms	76	1.5
Residual Lesions	43	1.5	Melanocytic nevi	148	1.5	Solar melanosis	71	1.4
Impetigo	42	1.5	Pruritus	139	1.4	Contact dermatitis	58	1.2
Non-specified nevi	41	1.4	Folliculitis	138	1.4	Melanoma	53	1.1
Others	930	32.7	Others	4,639	47.7	Others	1,575	32.2

The most common skin disorders referred to the secondary or primary health system were: psoriasis (7.9%), superficial mycosis (6.8%), seborrheic keratosis (6.2%), acne (5.9%) and non-specified eczema (5.1%). Furthermore, the diagnoses that needed more than one appointment at the AGDD were: non-specified eczema (16.2%), contact dermatitis (5.6%), atopic dermatitis (5.2%), superficial mycosis (4.2%) and without skin disease (4.0%) (Table 5).

DISCUSSION

Understanding the incidence of skin diseases is fundamental in making decisions regarding allocating resources for clinical care and research. Population-based studies are essential in this respect.⁸ At the HCFMUSP, we have already studied data on consultations and inpatient dermatology.^{4,5} This research is the first to analyze a triage clinic in which patients are treated at the three levels of care (primary, secondary and tertiary), seeking to complete the epidemiological analysis in our service.

The most common skin disorder in our study was eczema. In all cases, we observed non-specified eczema (41.3%), followed by atopic dermatitis (18.8%), contact dermatitis (15.1%), lichen simplex chronicus (10%), nummular eczema (5.6%), stasis dermatitis (4.9%) and dyshidrosis (4.4%). Eczema is a major health problem worldwide, mainly in developed

countries, where higher prevalence is influenced by socioeconomic and environmental factors. It is also associated with atopic dermatitis prevalence. Our data on eczema (18%) are close to the proportion observed among the US population (17.1%).⁹ In addition to climatic factors, the increasing use of cleaning products, especially in developing countries undergoing improvement in their populations' quality of life and socio-economic conditions, could be a reason for the comprehensive increase in eczema prevalence.¹⁰

We observed that the frequency of eczema was higher than the frequency of cutaneous infections, probably reflecting improvements in hygiene and the expansion of sewerage in Brazil. However, our data show that cutaneous infections still represent an important group of dermatoses among the population. We noted that the most common cutaneous infections were: superficial mycosis (51.5%), viral warts (16.2%), abscesses, furuncle and anthrax (5.2%), molluscum contagiosum (4.9%), herpes zoster (3.7%), impetigo (3.5%), herpes simplex (3.3%), cellulitis/erysipelas (3.1%) and leprosy (2.7%). Indeed, leprosy is a major endemic disease in Brazil, with more than 80% of cases in the Americas. The point prevalence is 2.6 per 10,000 inhabitants, and over 40,000 new cases each year.^{11,12} A high prevalence of leprosy was observed in our study. We believe that this prevalence is likely not higher only because many patients were evaluated and treat-

TABLE 5: Patient destination

Discharged		32.7	Return		16.0
Superficial mycosis	434	8.5	Non-classified eczema	405	16.2
Non-specified eczema	383	7.5	Contact dermatitis	141	5.6
Without skin disease	311	6.1	Atopic dermatitis	131	5.2
Seborrheic keratosis	298	5.8	Superficial mycosis	106	4.2
Asteatosis/Xerosis	235	4.6	Without skin disease	100	4.0
Atopic dermatitis	152	3.0	Urticaria	89	3.6
Seborrheic dermatitis	149	2.9	Lichen simplex chronicus	74	3.0
Contact dermatitis	141	2.8	Pruritus	73	2.9
Residual lesions	134	2.6	Nummular eczema	67	2.7
Psoriasis	117	2.3	Pityriasis rosea	62	2.5
Lichen simplex chronicus	102	2.0	Abscess, furuncle and anthrax	56	2.2
Acne	97	1.9	Impetigo	49	2.0
Viral warts	88	1.7	Dyshidrosis	47	1.9
Solar melanosis	87	1.7	Herpes Zoster	44	1.8
Pruritus	86	1.7	Seborrheic dermatitis	43	1.7
Melasma	82	1.6	Telogen effluvium	43	1.7
Actinic keratosis	81	1.6	Psoriasis	40	1.6
Melanocytic nevi	72	1.4	Cellulitis/Erysipelas	40	1.6
Folliculitis	69	1.3	Residual lesions	39	1.6
Vitiligo vulgaris	67	1.3	Stasis dermatitis	38	1.5
Pityriasis alba	59	1.2	Epidermal cysts	37	1.5
Soft fibroma /acrochordon	56	1.1	Prurigo	36	1.4
Nummular eczema	54	1.1	Insect bite reactions	36	1.4
Insect bite reactions	52	1.0	Non-specified nail disorders	25	1.0
Non-specified nevi	51	1.0	Non-specified drug reactions	25	1.0
Epidermal cysts	49	1.0	Asteatosis/Xerosis	25	1.0
Urticaria	49	1.0	Herpes simplex	24	1.0
Non-classified nail disorders	48	0.9	Folliculitis	23	0.9
Pityriasis rosea	46	0.9	Scabies	18	0.7
Others	1.469	28.7	Others	565	22.6
Follow-up at HCFMUSP		25.9	Primary/secondary health system		25.4
Basal cell carcinoma	588	14.5	Psoriasis	315	7.9
Squamous cell carcinoma	184	4.5	Superficial mycosis	272	6.8
Not classified eczema	168	4.2	Seborrheic keratosis	248	6.2
Superficial mycosis	112	2.8	Acne	236	5.9
Psoriasis	103	2.5	Not classified eczema	204	5.1
Lichen planus	100	2.5	Atopic dermatitis	192	4.8
Non-specified malignant cutaneous neoplasms	87	2.1	Viral warts	161	4.0
Non-specified tumor or vascular malformation	82	2.0	Vitiligo vulgaris	157	3.9
Viral warts	81	2.0	Actinic keratosis	135	3.4
Melanoma	80	2.0	Seborrheic dermatitis	113	2.8
Non-specified lupus erythematosus	68	1.7	Contact dermatitis	103	2.6
Onicrioptosis	66	1.6	Melanocytic nevi	102	2.6
Atopic dermatitis	66	1.6	Melasma	100	2.5
Acne	65	1.6	Lichen simplex chronicus	91	2.3
Non-specified drug reactions	55	1.4	Soft fibroma /acrochordon	84	2.1
Contact dermatitis	52	1.3	Epidermal cysts	80	2.0
Keloid	47	1.2	Alopecia areata	66	1.7
Vitiligo vulgaris	47	1.2	Stasis dermatitis	59	1.5
Actinic keratosis	39	1.0	Asteatosis/Xerosis	58	1.5
Molluscum contagiosum	39	1.0	Keloid	56	1.4
Cutaneous horn	36	0.9	Without skin disease	53	1.3
Hansen disease	34	0.8	Androgenic alopecia	48	1.2
Non-specified collagen diseases	34	0.8	Solar melanosis	43	1.1
Scleroderma	34	0.8	Nummular eczema	38	1.0
Erythema nodosum	34	0.8	Folliculitis	35	0.9
Hidradenitis	33	0.8	Pruritus	35	0.9
Discoid lupus erythematosus	32	0.8	Callus	34	0.9
Alopecia areata	32	0.8	Dyshidrosis	34	0.9
Non-specified bullous diseases					

ed at other reference centers, and in the primary and secondary healthcare units.

Erythematous squamous conditions were also common in our study (6.8%). Among them, psoriasis and seborrheic dermatitis were the most frequently observed, present in 54% and 30%, respectively. These data were expected, since psoriasis affects approximately 2% of the population worldwide and seborrheic dermatitis is also a common skin condition, whose prevalence in adults is estimated at 5%.^{13,14,15} Further, the results are closer to those in Japan, where Furue *et al.* found a prevalence of 4.4% for psoriasis and 3.2% for seborrheic dermatitis.¹ Moreover, they are in line with results obtained in Eskisehir, Turkey, where Bilgili *et al.* listed psoriasis as the fifth most common skin disease (5.5%), while seborrheic dermatitis appeared in 2.2% of all cases.¹⁶ Additionally, our study was performed at a hospital with a phototherapy unit, so we expected to find a considerable prevalence of psoriasis, as many patients are referred to our clinic for this treatment.^{1,16}

Likewise, we observed a high incidence of malignant cutaneous neoplasm (6.1%), 62.1% of which were BCC cases, as expected. Data from The National Cancer Institute (INCA) show that non-melanoma skin cancer represents 25% of all cases and BCC is the most frequent type, accounting for 70% of cases.¹⁷ These findings are similar to those of Katalinic *et al.*, who conducted a study in Germany, finding that over 80% of all skin tumors were BCC.¹⁸

Analyzing skin disorders by age group, non-specified eczema, superficial mycosis and psoriasis were frequently observed in all groups as predicted, because these disorders are very common. Atopic dermatitis was the predominant disease for children. Acne was more frequent in children and adults, as well as viral warts. BCC and squamous cell carcinoma were more common in the elderly. These findings are comparable to countries such as Japan, where the top five diseases for each age group were listed. Miscellaneous eczema occurred in every age group, whereas atopic dermatitis was among the top five diseases in individuals aged under 50. Molluscum contagiosum and impetigo were frequent among patients aged 0–10 years. Viral warts were among the top five diseases for individuals aged 6–45 years. Acne was common in groups aged 11–35 years. Urticaria/angioedema were among the top five diseases in groups aged 11–70 years. Tinea pedis was common in groups aged above 41 years. Psoriasis appeared in the top five diseases among the middle-aged and elderly, with ages ranging from 46 to 80 years.¹

The category 'without skin disease' was prevalent in all age groups. This may reflect a possible forward error and the difficulty patients face in accessing specialists in the Brazilian public health system. Specifically, when patients undergo specialized medical evaluation after a long waiting period, the disease has disappeared. This is significant and highlights the need to reduce the time taken to arrive at hospitals and adopt better referral criteria.

In our study, there was little difference in disease prevalence between men and women. The three most frequent disorders identified in males were mycosis, non-specified eczema and BCC. In females, we noted non-specified eczema, mycosis and 'without skin disease'. Contact dermatitis and acne predominated in women rather than men, similarly to the findings of Bilgili *et al.* and to epidemiological data published on these diseases.¹⁹⁻²¹

Regarding the destination analysis, the main skin disorders that resulted in patient follow-up at our service were: malignant cutaneous neoplasm (mainly BCC and squamous cell carcinoma), non-specified eczema, superficial mycosis, psoriasis, lichen planus, other skin tumors, viral warts, lupus, atopic dermatitis, drug reactions, keloid and vitiligo. The majority of these diseases were also the most common disorders among the population and therefore some cases were monitored at our service for residents and medical students to learn. Another reason why common diseases are monitored at the HCFMUSP is that the Brazilian health system is deficient, with a lack of specialists and infrastructure, mainly at the primary and secondary levels of care.⁷ Furthermore, the most complex and/or severe cases like skin cancer and other skin tumors must be monitored at our service, since the HCFMUSP is among the biggest and best equipped tertiary, public hospitals in Latin America.

CONCLUSION

Understanding the incidence of skin diseases is fundamental in making decisions regarding resource allocation for clinical care and research. Population-based studies are essential in this respect.

In our study, the most common diseases were eczema, cutaneous infections, erythematous squamous diseases and cutaneous neoplasms. The high prevalence of some diseases with low complexity, as observed at the triage service of a tertiary hospital, partly reflects the lack of specialists and scarce resources in the primary and secondary Brazilian health system. Thus, we believe our findings can contribute to improving public health policies. □

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