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Original Article

The retrospective evaluation of clinical and sociodemographic features of patients with psoriasis

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Abstract

Aim: In this study, we aimed to evaluate the clinical and demographic characteristics of psoriasis patients such as family history, age of onset, clinical type, joint involvement.

Material and Methods: 150 patients with psoriasis who were referred to our dermatology clinic between January 2017 and January 2018 were included in the study. Parameters of age, gender, occupation, age of onset, joint or nail involvement, lesion morphology, lesion distribution, disease severity, family history, accompanying diseases, received or ongoing treatments, smoking and alcohol use and body mass index were recorded. The data were analyzed statistically.

Results: Of the patients participating in the study, 65 were female and 85 were male. The mean age of onset was 21.65 ± 15.70. Family history was present in 26%, early onset 72%, accompanying diseases 16%, joint involvement 24%, nail involvement 28%, smoking 31.33% and alcohol intake 2.66% of the patients. The most common clinical type was plaque (58.66%), the most common site was scalp/face region (81.33%), and the most commonly used systemic treatment was acitretin (30.66%).

Conclusion: Our study results were similar to those of domestic and international studies evaluating the clinical and demographic characteristics of psoriasis. Smoking rates, age of onset and age of admission to hospital were lower in females. Accompanying disease rates were higher in patients with positive family history. We believe that a comprehensive history including alcohol and cigarette use, comorbidities, joint and nail involvement in psoriasis-diagnosed patients will be more useful in terms of the disease progression.

Keywords: Demography; Psoriasis; Retrospective Study.

INTRODUCTION

Psoriasis is a chronic inflammatory skin disease whose etiopathogenesis is clearly unknown (1). It is seen in 1-2% of the normal population. Frequency of the disease is equal in both genders and each patient has different clinical course (2). Psoriasis can also affect nails and joints. Early onset of the disease is usually associated with more severe course (3). The presence of family history shows a significant HLA relationship (4). Sociodemographic psoriasis studies show many parameters like gender, family history, age of onset, clinical type, joint and nail involvement (3).

There are various studies about the clinical and sociodemographic characteristics of psoriasis patients in our country. In this study, we aimed to reveal the clinical and sociodemographic characteristics of psoriasis patients who applied to our clinic and compare them with other similar studies.

MATERIAL and METHODS

The study was conducted between January 2017 and January 2018. 150 patients with clinically or histopathologically diagnosed psoriasis were included in the study. Informed consent form was obtained from participants. Age, gender, job, age of onset, smoking and alcohol use, joint and nail involvement, lesion distribution (scalp/face, body/extremity, inverse involvement), disease severity, clinical type, family history, accompanying diseases, treatment taken or being taken and body mass index (BMI) parameters were recorded. The cost of the study was covered by the researchers. For the study, local ethics committee approval was obtained from the Medical Faculty of the University.

Statistical analysis

IBM SPSS 23.0 (Chicago, USA) package program was used for statistical analysis. Categorical data were assessed by pearson Chi-square test. Continuous data were calculated

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as mean ± standard deviation (SD). Categorical data were calculated as frequency (%). The level of significance was determined as p <0.05.

RESULTS

Of the 150 patients who participated in the study, 65 were female and 85 were male. The mean age was 26.37 in females, 32.09 in males, 29.62 ± 17.15 in all patients There was a statistically significant difference in term of age between the two genders (p <0.05). While 10.76% of the females were in preschool age, 30.7% were students, 4.61% were university graduates, 53.84% were housewives; 9.41% of the males were preschoolers, 20% were students, 5.88% were university graduates, 64.70% were self-employed. There was a statistically significant difference in terms of job between the two genders (p <0.05) (Table 1).

The mean age of onset was 19.05 in females, 23.65 in males, 21.65 ± 15.70 in all patients. 78.46% of the females and 67.05% of the males were early (<40 years) onset. 21.53% of females (>40 years) and 32.94% of males were late onset. 72% of all patients were early onset, and 28% were late onset. There was no statistically significant difference in terms of early and late age of onset between two genders (p> 0.05) (Table 1).

There was no statistically significant difference between the age of onset and family history, disease severity, clinical type, accompanying disease, joint involvement, nail involvement, smoking, alcohol intake, received treatments (p> 0.05). There was a significant difference between age of onset and BMI, scalp/facial involvement (p = 0.004 and p = 0.038, respectively). Family history (first degree relatives) was positive in 27.69% of females, 24.70% of males, 26% of all patients. There was no statistically significant difference in terms of family history between the two genders (p> 0.05) (Table 1).

While there was no statistically significant difference between family history and other parameters (p> 0.05), there was a significant difference between family history and accompanying diseases (p = 0.002). The smoking rate was 15.38% in females, 43.52% in males, 31.33% on average. There was a statistically significant difference in terms of smoking rate between the two genders (p< 0.005) (Table 1).

While there was no statistically significant difference between smoking and other parameters (p> 0.05), there was a significant difference between smoking and body/extremity involvement (p = 0.014). The rate of alcohol intake was 0% in females, 4.70% in males, 2.66% on average. There was no statistically significant difference in terms of alcohol intake between the two genders (p> 0.05) (Table 1). While there was no statistically significant difference between alcohol intake and other parameters (p> 0.05), there was a significant difference between alcohol intake and joint involvement (p = 0.046).

The rate of joint involvement was 27.69% in females, 21.17% in males, 24% on average. There was no statistically significant difference in terms of joint involvement between the two genders (p> 0.005) (Table 1).

There was no statistically significant difference between joint involvement and other parameters (p> 0.05) but there was a significant difference between joint involvement and nail involvement, methotrexate use, body/extremity involvement (p = 0.007, p = 0.027 and p = 0.037, respectively).

The rate of nail involvement was 26.15% for females, 29.41% for males, 28% on average. There was no statistically significant difference in terms of nail involvement between the two genders (p< 0.005) (Table 1).

While there was no statistically significant difference between nail involvement and other parameters (p> 0.05), there was a significant difference between the nail involvement and joint involvement, accompanying diseases, methotrexate use, body/extremity involvement, inverse involvement (p = 0.007, p = 0.049, p = 0.043, p = 0.003 and p = 0.039, respectively).

32.30% of the females were in mild form, 21.53% were in moderate form, 46.15% were in severe form. 31.76% of males were in mild form, 28.23% were in moderate form, 40% were in severe form according to the 'psoriasis area and severity index'. There was no statistically significant difference in terms of disease severity between the two genders (p> 0.05) (Table 1). While there was no statistically significant difference between disease severity and other parameters (p> 0.05), there was a significant difference between disease severity and phototherapy, acitretin, methotrexate, cyclosporine, biological agent use, scalp/face involvement, inverse involvement (p< 0.001, p< 0.001, p< 0.01, p = 0.002, p = 0.004, p< 0.001 and p< 0.001, respectively). 18.46% of the females were underweight, 41.53% were normal, 21.53% were overweight, 18.46% were obese. 12.94% of males were underweight, 38.82% were normal, 20% were overweight, 28.23% were obese. 15.33% of all patients were underweight, 40% were normal, 20.66% were overweight, 24% were obese. The mean BMI was 24.81 ± 5.66. There was no statistically significant difference in terms of BMI between the two genders (p> 0.780) (Table 1).

While there was no statistically significant difference between BMI and other parameters (p> 0.05), there was a significant difference between BMI and age, job (p = 0.004 and p = 0.002, respectively).

There was an accompanying disease in 18.46% of females, 14.11% of males, 16% of all patients: HbsAg positivity (6 patients), Diabetes mellitus (4 patients), dyslipidemia (one patient), epilepsy (one patient), acute rheumatismal fever (one patient), rheumatoid arthritis (2 patients), Asthma (one patient), Cheliac disease (one patient), Polycythemia vera (one patient), vitiligo (one patient). There was no statistically significant difference in terms of accompanying diseases between the two genders (p> 0.05) (Table 1).

Table 1. Clinical and sociodemographic characteristics of patients and p values

	Female		Male		Total		
Variable	n	%	n	%	n	%	p
Age of onset							0.556
<40 years	51	78.46	57	67.05	108	72	
>40 years	14	21.53	28	32.94	42	28	
Family history							0.409
Positive	18	27.69	21	24.70	39	26	
Negative	47	72.30	64	75.29	111	74	
Accompanying diseases							0.358
Positive	12	18.46	12	14.11	24	16	
Negative	53	81.53	73	85.88	126	84	
Joint involvement							0.358
Positive	18	27.69	18	21.17	36	24	
Negative	47	72.30	67	78.82	114	76	
Nail involvement							0.400
Positive	17	26.15	25	29.41	42	28	
Negative	48	73.84	60	70.58	108	72	
Cigarette							0.001
Positive	10	15.38	37	43.52	47	31.33	
Negative	55	84.61	48	56.47	103	68.66	
Alcohol							0.100
Positive	0	0	4	4.70	4	2.66	
Negative	65	100	81	98.82	146	97.33	
Job							0.001
Pre-school	7	10.76	8	9.41	15	10	
Student	20	30.70	17	20	37	24.66	
University graduate	3	4.60	5	5.88	8	5.33	
Self-employment	-	-	55	64.70	55	36.66	
Housewife	35	53.84	-	-	35	23.33	
Clinical type							0.492
Plaque	37	56.92	60	51	88	58.66	
Guttate	13	20	24	28.23	37	24.66	
Pustular	1	1.53	1	1.17	2	1.33	
Erythrodermic	1	1.53	1	1.17	2	1.33	
Palmoplantar	13	20	8	9.41	21	14	
Lesion distribution							
Scalp/face	54	83.07	68	80	122	81.33	0.397
Body/extremity	45	69.23	60	70.58	105	70	0.436
İnverse	33	50.76	48	56.47	81	54	0.298
Disease severity							0.677
Mild	21	32.30	27	31.76	48	32	
Moderate	14	21.53	24	28.23	38	25.33	
Severe	30	46.15	34	40	64	42.66	
Treatment							
Phototherapy	22	12.64	21	24.70	43	28.66	0.418
Acitretin	19	29.23	27	31.76	46	30.66	0.501
Methotrexate	21	32.30	23	27.05	44	29.33	0.419
Cyclosporine	9	13.84	11	12.94	20	13.33	0.578
Biological agent	4	2.66	11	12.94	15	10	0.135
BMI							0.780
Underweight	12	18.46	11	12.94	23	15.33	
Healthy	27	41.53	33	38.82	60	40	
Overweight	14	21.53	17	20	31	20.66	
Obese	12	18.46	24	28.23	36	24	

While there was no statistically significant difference between accompanying disease and other parameters (p> 0.05), there was a significant difference between the accompanying disease and family history, nail involvement, methotrexate use, body/extremity involvement (p = 0.002, p = 0.047, p = 0.013 ve p = 0.006, respectively).

Of the females, 56,92% had plaque, 20% had guttate, 1.53% had pustular, 1.53% had erythrodermic, and 20% had palmoplantar type. Of the males, 60% had plaque, 28.23% had guttat, 1.17% had pustular, 1.17% had erythrodermic, and 9.41% had palmoplantar type. The most clinical type was plaque type in every 2 genders. There was no statistically significant difference in terms of clinical type between the two genders (p> 0.05) (Table 1).

There was no statistically significant difference between clinical type and other parameters (p> 0.05), there was a significant difference between clinical type and biological agent use, body/extremity involvement (p< 0.001 and p = 0.037, respectively).

For the lesion distribution, females had 83.07% scalp/face involvement, 69.23% body/extremity involvement, and 50.76% inverse involvement.

Males had 80% scalp/face involvement, 70.58% body/extremity involvement, and 56.47% inverse involvement. There was no statistically significant difference in terms of lesion distribution between the two genders (p> 0.05) (Table 1).

There was a statistically significant difference between inverse involvement and disease severity, nail involvement, methotrexate use (p< 0.001, p = 0.039 and p = 0.022, respectively). There was a statistically significant difference between scalp/face involvement and family history, disease severity, age, cyclosporine and methotrexate use (p = 0.007, p< 0.001, p = 0.038, p = 0.009 ve p = 0.027, respectively). There was a statistically significant difference between body/extremity involvement and clinical type, smoking, joint involvement, nail involvement, accompanying diseases, methotrexate (p = 0.037, p = 0.014, p = 0.037, p = 0.002, p = 0.006 and p = 0.024, respectively).

DISCUSSION

6-8% of all patients, who apply dermatology polyclinics, have psoriasis. In spite of the prevalence of this disease, studies mainly focus on pathogenesis and its treatment, and there is insufficient data related to its epidemiology. Psoriasis prevalence is between 4.8% and 0.2% in epidemiological studies, stated as 2% on average and 1.3% in our country (5).

Psoriasis is equally common in both men and women. While men/women ratio of psoriasis is 1.3/1 in Sweden, it ½ in Japan (6). This ratio, for our country, was determined to be 1.5/1 in the study conducted by Kundakci et al. (7) in 329 patients, 1/1.09 in the study conducted by Oguz Topal et al (6) in 724 patients, 1/0.99 in the study conducted by Aykol et al. (2) in 640 patients, 1.084 in the study conducted by Solak Tekin et al. (3) in 275 patients and 1.17/1 in the study conducted by Turan et al. in 248 patients (8). In contrast to many studies conducted in our country, our study had higher men population (1/1.3).

The reason why there were fewer women might seem from the fact that women do not usually visit hospitals due to fear of social stigmatization in the region they live.

Psoriasis might occur on every age and is more common at younger ages in women. 70% of the patients experience first symptoms before the age of 40 (5). According to a study conducted in Germany, average age of onset was determined as 32 in men and 30 in women (9). In the study carried out by Metin et al. the average onset age was determined as 22.49 in women and 23.1 in men (10). The average onset age of women was younger than men in the studies conducted by Solak Tekin et al. (3) and Aykol et al. as well (2). In accordance with the literature, the average onset age was younger in women (19.05) when compared to men (23.65) in our study as well. According to the study conducted by Rıfaioglu et al., the patients were categorized into two groups of early (younger than 40 years old) and late (more than 40) onset ages, and 70.3% of the patients were determined to be in the early onset age group (11). Accordingly, 72% of the patients were in the category of early-onset age in our study.

Family history varies around 27-33% in psoriasis patients (2). According to the study conducted by Oguz Topal et al. (6) in 724 patients, family history rate was 24,9%, this rate was 25.6% in the study of Aykol et al. (2) conducted in 640 patients and 24.4% in the study of Rıfaioglu et al. conducted in 1831 patients (11). In line with the literature, the family history rate was 26% in our study as well.

For patients with early onset age and family history, less favorable prognosis is suggested (5). Psoriasis start at an early age in patients with family history. According to the study conducted by Oguz Topal et al., the average onset age was found to be younger in patients with family history when compared to others (6). Likewise, the study of Rıfaioglu et al. showed younger onset age on patients with family history (11). There was no significant correlation between family history and early onset age in our study. The rate of accompanying diseases appeared to be higher in patients with family history comparing with those without family history.

The most common clinical type of psoriasis is the plaque type (8). The most common plaque type has been determined to be the guttate type of plaque in our country (6,8,11). In accordance with the literature, the most common type was determined to be the guttate type psoriasis, as well.

Nail involvement rate is reported as 20-50% in psoriasis (2,12). This rate was 37.6% in the study conducted by Aykol et al. (2) and 62.1% in the study of Solak Tekin et al. (3). This rate was lower in our study when compared to the literature (28%). Joint involvement is 5-7% in psoriasis (13). This rate was 14.5% in the study of Turan et al. (8),

while it was 4.1% in the study of Solak Tekin et al. (3), 5.6% in the study of Aykol et al. (2) and 11.6% in the study of Oguz Topal et al. (6). This rate was recorded higher than the literature (24%) and the reason might be due to presence of high number of patients with severe psoriasis.

Nail involvement rate is recorded as more than 80% in patients with arthropathic psoriasis (14). According to the study conducted by Oguz Topal et al. (6), there was no significant correlation between patients with and without nail involvement in terms of joint involvement; in the study of Solak Tekin et al. (3), all patients with arthropathic psoriasis were recorded to have changes in nails; and in the study of Aykol et al., more than half of the patients with arthropathic psoriasis had changes in nails (2). In accordance with the literature, nail involvement rate was higher in patients with joint involvement.

Alcohol intake affects the course of psoriasis negatively. Alcohol consumption rate of psoriasis patients is around 17-30% (2). This rate was recorded as 19.6% in the study conducted by Solak Tekin et al. (3), 12% in the study of Kundakci et al. (7) and 19.2% in the study of Rıfaioglu et al (11). Alcohol intake rate was lower in our study when compared to the literature (2.66%). This difference might result from the fact that conservative population was higher in the region, where the study was conducted and patients might have wanted to conceal their alcohol habits. 3 out of 4 patients with alcohol intake had joint involvement and this fact supports the conviction that alcohol affects the course of psoriasis negatively.

Smoking rate is 2 times higher in psoriasis patients and long-term smoking habit might affect psoriasis negatively (15-6). Smoking rate of patients was 19.6% in the study conducted by Solak Tekin et al. (3), 40% in the study of Kundakci et al. (7), 42.3% in the study of Rıfaioglu et al. (11) and 28.2% in the study of Aykol et al. (2). This rate was recorded in accordance with the literature average (31.33%) in our study, as well.

The risk of metabolic syndromes including obesity, diabetes, hypertension and hyperlipidemia increases in patients with psoriasis (17). Metabolic syndromes are observed especially in patients with severe psoriasis, and according to a study, 8.2% of the patients with psoriasis have metabolic syndromes (5). According to the study conducted by Rıfaioglu et al., accompanying disease rate was recorded as 18.6% and the most common of these diseases were observed to be diabetes and hypertension (11). This rate was recorded as 51% in the study of Oguz Topal et al. and the most common of these diseases were observed to be hypertension, diabetes and dyslipidemia (6).

In the study of Akoglu et al., the rate of accompanying diseases was 36.6% and the most common accompanying comorbidity was hypertension (18). 16% of the patients suffered from an accompanying disease in our study including 6 patients with HBsAg positivity, 4 with diabetes mellitus, 3 with hypertension, 2 with hypercholesterolemia, 1 with epilepsy, 1 with acute rheumatic fever, 2 with rheumatoid arthritis, 1 with asthma, 1 with celiac disease, 1 with polycythemia vera and 2 with vitiligo. 13 out of 24 patients with accompanying diseases suffered from severe psoriasis including 3 patients with diabetes and 3 patients with hypertension. 10 out of 24 patients with accompanying diseases had nail involvement. The data of our study was in accordance with the findings of the literature in terms of existence of accompanying diseases.

Body mass index is higher in patients with psoriasis when compared to general population. BMI rate of more than 30 increases the risk of developing psoriasis (20). According to the BMI rates in the study conducted by Oguz Topal et al., 43% of the patients were normal, 30.7% were overweight and 23.4% were obese (6). 15.33% of the patients were slim, 40% were normal, 20.66% were overweight and 24% were obese in our study and these numbers were in line with the literature.

Severe psoriasis was observed in 53.21% of 1774 patients in the study of Ferrandizet al. and 34% of 1831 patients were diagnosed with mild to severe psoriasis in the study of Rıfaioglu et al (11). The rate of patients with severe psoriasis was higher in our study when compared to the other studies conducted in Turkey. The reason might be due to the fact that the number of cases was fewer, the region, where the patients live have dry air with no humidity and that women do not visit hospitals until it was too late as they fear social stigmatization.

The most commonly used systemic agents are acitretin (18%) and methotrexate (15.7%) and the least used systemic agent is cyclosporine (5.2%) according to the study of Oguz Topal et al (6). The most commonly used systemic agents became acitretin (30.66%) and methotrexate (29.33%) and the least used systemic agents were biological agents (10%) in our study. The reason might be because it is difficult to find doctors, who have the authority to prescribe biological agents.

According to the study conducted by Ozeren et al., 58.3% of the patients had scalp involvement, 28.3% had face involvement, 23.5% had penis involvement and 18.3% had flexural involvement issues (21). In our study, the most common location was scalp/face area (81.33%) for both genders; and 70% of body and/or extremity involvement and 54% of inverse involvement was present. These rates correspond with the literature.

As a result, our data was similar to domestic and international studies of psoriasis, in which clinic and demographic characteristics are evaluated. The average onset age of women was younger; and alcohol intake and smoking rates were lower when compared to men. Accompanying diseases were observed more in patients with family history. Nail involvement rate was higher in patients with extremity involvement and accompanying diseases. Extremity involvement rate was higher in patients with alcohol intake. Psoriasis is a chronic inflammatory dermatosis that negatively affects quality of

life with extremity involvement and comorbidities and it is observed in 1-3% of population and 6-8% of patients, who visit dermatology polyclinics. We are of the opinion that a detailed medical record gathered from patients diagnosed with psoriasis including family history, alcohol intake, smoking habits, comorbidities, extremity involvement and nail involvement, will be beneficial to the course of the disease, influence positively the choice of treatment and patients' quality of life.

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