

The Prevalence of Pruritus in Mustafa Kemal University Dermatology Outpatient Clinic During July 2008

*Mustafa Kemal Üniversitesi Tıp Fakültesi Dermatoloji Polikliniği'ne
2008 Temmuz Ayı İçerisinde Başvuran Hastalarda Pruritus Prevalansı*

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Objectives: The aim of the present study was to examine the prevalence of pruritus in patients who presented to the outpatient dermatology clinic with skin diseases.

Patients and Methods: A total of 521 patients (mean age 35.7 ± 18.3 years; range 7 to 96 years) over the age of seven who presented to our outpatient clinic during July 2008 were enrolled in the study. All participants completed a specially designed questionnaire on demographic and clinical data. All patients who had felt itchy more or less over the area of their lesions within the past week were determined to be pruritic. The diagnoses were made based on the International Classification of Diseases.

Results: Of all patients, 324 (62.2%) agreed to participate in our project. 194 (59.9%) patients reported pruritus within the past seven days. Of these, 29 (14.9%) had a diagnosis of dermatitis/eczema, 26 (13.4%) had urticaria, 21 (10.8%) had tinea infections, 15 (7.7%) had acne, 14 (7.2%) had psoriasis, 31 (16%) had pruritus of unknown origin and 32 (16.5%) had another diagnosis.

Conclusion: In this study, the prevalence of pruritus of unknown origin was found to be high. Clinicians should be encouraged to carefully assess pruritus of unknown origin because of underlying systemic diseases.

Key words: Pruritus; dermatology; pruritus of unknown origin; prevalence.

Amaç: Bu çalışmanın amacı, dermatoloji klinигine başvuran hastalar arasında pruritus prevalansının değerlendirilmesidir.

Hastalar ve Yöntemler: Çalışmaya 2008 Temmuz ayı boyunca dermatoloji poliklinигine başvuran yedi yaşından büyük toplam 521 hasta (ort. yaşı 35.7 ± 18.3 ; dağılım 7-96) alındı. Hastaların tümüne demografik ve klinik verilerle ilgili anket formu dolduruldu. Son bir hafta sürecinde mevcut deri hastalıklarında az ya da çok kaşıntısı olanlar pruritik olarak kabul edildi. Dermatolojik tanılar Uluslararası Hastalık Sınıflandırması'na uygun olarak kaydedildi.

Bulgular: Hastalardan 324'ü (%62.2) çalışmaya katılmayı kabul etti. 324 hastanın 194'ü (%59.9) son bir hafta içerisinde kaşıntı tariflemektedir. Bu hastaların 29'unda (%14.9) dermatit/egzama, 26'sında (%13.4) ürtiker, 21'inde (%10.8) tinea infeksiyonu, 15'inde (%7.7) akne, 14'ünde (%7.2) psoriasis, 31'inde (%16) nedeni bilinmeyen kaşıntı ve 32'sinde (16.5%) diğer dermatolojik hastalıklar saptandı.

Sonuç: Çalışmamızda nedeni bilinmeyen pruritus prevalansı yüksek olarak saptanmıştır. Özellikle bu olgular altta yatabilecek sistemik hastalıklar açısından dikkatlice değerlendirilmelidir.

Anahtar sözcükler: Pruritus; dermatoloji; nedeni bilinmeyen kaşıntı; prevalans.

Pruritus is a common manifestation of dermatologic diseases. It can cause discomfort, sleeplessness, anxiety, and depression. The pathogenesis of pruritus is complex and has not been fully elucidated. A thorough history and a complete physical examination are central to the evaluation of pruritus.

Pruritus has been shown to negatively affect patients' well-being. Results of a recent study revealed that patients with a pruritic skin disease have a high level of psychosocial morbidity.^[1] Another study investigated the relationship between stressful major life event and dermatological symptoms in nonclinical subjects found that the most commonly described symptom was pruritus.^[2]

Although pruritus is the primary reason for the clinic visit in almost one third of the cases, surprisingly little data are available about the prevalence of pruritus in general dermatology clinics. The aim of this present study was to examine the prevalence of pruritus in patients who presented to the university-based dermatology outpatient clinic with skin diseases.

PATIENTS AND METHODS

The study was approved by the ethics committee. During July 2008, patients who visited our university-based outpatient dermatology clinic to establish the prevalence of pruritus experienced within the seven days before presentation were requested to complete a specially designed questionnaire on demographic and clinical data. Patients younger than seven years old were excluded from the study. All patients who have itched more or less over the area of their lesions within the past week were determined to be pruritic. The intensity of pruritus was scored using a visual analog scale. Suspected clinical diagnoses were confirmed using a direct smear and/or skin biopsy. The dermatologic diagnoses were classified into different groups based on the International Classification of Diseases (ICD-10). Patients without an obvious dermatologic cause were diagnosed as pruritus of unknown origin (PUO).

RESULTS

A total of 521 patients (mean age 35.7 ± 18.3 years; range 7 to 96 years) were seen by a dermatologist, of these, 324 (62.2%) agreed to participate in our research project. Seventy-five percent of the participants were female. Nine percent of the patients were uneducated, 46% had primary school graduates, while 30.8% had at least some high school education, and 14.2% were university graduates. The majority of the patients were housewives (41.1%), while 24.4% were students (Table 1).

Of these 324 patients surveyed, 194 (59.9%) reported pruritus within the past seven days. Of these, 29 (14.9%) had a diagnosis of dermatitis/eczema, 26 (13.4%) had urticaria, 21 (10.8%) had tinea infections, 15 (7.7%) had acne,

Table 1. Data of the study population

Features	Number of patients (%)
Age (years)	35.7 ± 18.3 (7-96 years)
Sex	
Female	212 (65.4%)
Male	112 (34.6%)
Education	
Uneducated	29 (9%)
Primary school graduates	149 (46%)
High school graduates	100 (30.8%)
University graduates	46 (14.2%)
Occupation	
Housewife	134 (41.1%)
Student	79 (24.4%)
Employee	56 (17.3%)
Official worker	33 (10.2%)
Unemployed	22 (6.8%)
Pruritus within the past seven days	194 (59.9%)
Dermatitis/eczema	29 (14.9%)
Urticaria	26 (13.4%)
Tinea infections	21 (10.8%)
Acne	15 (7.7%)
Psoriasis	14 (7.2%)
Pruritus of unknown origin	31 (16%)
Others	26 (13.4%)
Pruritus was the reason for clinic visit	
Yes	146 (75.3%)
No	48 (24.7%)

14 (7.2%) had psoriasis, 32 (16.5%) had another diagnosis (including viral and bacterial skin infections), and 31 (16%) had PUO. Twenty six subjects (13.4%) did not complete this question. A sequential subset of patients (n=194) was asked whether pruritus was the reason for their clinic visit, with 146 (75.3%) responding "yes" (Table 1). Overall clinic prevalence (n=324) of eczema/dermatitis was 9.9%, urticaria was 8.6%, and PUO was 9.6%.

DISCUSSION

Pruritus is a common complaint among general dermatology clinic; however, there are few reports on its prevalence. In a community-based study, the prevalence of pruritus was found to be 8.4%.^[3] Another study showed that the prevalence of pruritus experienced within a week before presentation to the outpatient dermatology clinic was 36%.^[4] In our study, we found that 59.9% patients had pruritus within seven days before presentation. This difference may be attributed to the ethnic and regional differences between these two study populations.

Pruritus of unknown origin is an important problem and should be taken seriously. Weisshaar et al.^[5] studied the clinical characteristics of pruritus from two different countries. In that study, the majority of the German patients had pruritus due to dermatoses (57%) and only 8% of the patients exhibited PUO. However, almost all Ugandan patients had pruritus due to dermatoses except for three patients who had PUO. Another study investigating the skin disease pattern in a university hospital revealed that the 3.3% of the patients were diagnosed as PUO.^[6] In our study, we found that the prevalence of PUO was higher than those two studies interestingly. The results showed that the overall prevalence (n=324) of PUO was 9.6%, and among the patients who presented with only pruritus (n=194), 16% were diagnosed with PUO. Patients with pruritus that does not respond to conservative therapy should be evaluated for underlying systemic disease. The underlying diseases included renal insufficiency, cholestasis, Hodgkin's lymphoma, hypothyroidism, gastric adenocarcinoma, hepatitis B and

C, HIV, diabetes mellitus, laryngeal carcinoma, graft-versus-host disease, chronic lymphocytic leukemia, and iron deficiency anemia.^[7-9] In the literature, Zirwas and Seraly^[10] showed that PUO was the initial symptom of a systemic disease in 7 of 50 patients in their series. From these data, PUO indicates better understanding of the causes or factors that triggers it.

In our study, eczema/dermatitis was the most prevalent diagnoses, accounting for 14.9% among the patients who experienced pruritus within seven days before presentation, and 9.9% in all patients who presented to the dermatology clinic with skin problems. Our results was higher compared to the previous studies.^[11,12] This could be explained partly because of regional differences and selected period of study.

Pruritus is a predominant symptom of urticaria which is one of the most common problems for dermatologist and general practitioners.^[13] Urticaria severely affects the quality of life of patients and can cause disability and distress. Patients may suffer symptoms such as pruritus and disfigurement due to wheals for years or decades. It may be triggered by allergens, infection, autoimmunity and other immunological conditions. Although rarely life-threatening, widespread urticaria and its associated angioedema can be an extremely disabling and difficult-to-treat condition. Yosipovitch et al.^[14] showed that 76 patients with urticaria found their pruritus bothersome, 66 annoying and 14 complained of depression. According to a recent population-based study, the prevalence of chronic urticaria in Spain was about 0.6% of the general population.^[15] Baghestani et al.^[12] found that the prevalence of urticaria and erythema was 2.8% in their region. Another study revealed that 3% of all patients referred to an acute dermatological clinic had urticaria.^[4] The prevalence of urticaria was found to be higher in our study, at 8.6%, compared to the prevalence reported from studies mentioned in this paper.^[12,15] This may be attributed to the fact that our study was not a population-based study and was performed at a general dermatology clinic in a summer period.

Pruritus is also a common feature of psoriasis and affects quality of life.^[16] Generalized pruritus was a feature of psoriasis in 84% of the patients. Indeed, present study showed that pruritus was one of the reasons for clinic visit of psoriatic patients.

Pruritus is a relatively common concomitant symptom of acne lesions.^[17] Interestingly, our study showed that acne patients had a pruritus but it was not a reason for their visit to the clinic. This may be explained by the fact that acne traditionally affects adolescents.^[18] In these ages seeking help for cosmetic reasons sometimes can be a leading problem for presentation to the dermatology clinics.

In conclusion, pruritus is a common complaint in general dermatology clinics. It has a major impact on quality of life and especially impairs those patients with pruritus associated with dermatoses and PUO. Increased awareness of this common symptom helps minimize the psychosocial morbidity. Clinicians should be encouraged to carefully assess pruritus of unknown origin because of underlying systemic diseases.

REFERENCES

1. van Os-Medendorp H, Eland-de Kok PC, Grypdonck M, Bruijnzeel-Koomen CA, Ros WJ. Prevalence and predictors of psychosocial morbidity in patients with chronic pruritic skin diseases. *J Eur Acad Dermatol Venereol* 2006;20:810-7.
2. Gupta MA, Gupta AK. Stressful major life events are associated with a higher frequency of cutaneous sensory symptoms: an empirical study of non-clinical subjects. *J Eur Acad Dermatol Venereol* 2004;18:560-5.
3. Dalgard F, Svensson A, Holm JØ, Sundby J. Self-reported skin morbidity in Oslo. Associations with sociodemographic factors among adults in a cross-sectional study. *Br J Dermatol* 2004;151:452-7.
4. Alexander H, Shah N, Palubin K, Chen S. Prevalence of pruritus in general dermatology clinics. *J Am Acad Dermatol* 2005;52(Suppl 3):106. [Abstract]
5. Weisshaar E, Apfelbacher C, Jäger G, Zimmermann E, Bruckner T, Diepgen TL, et al. Pruritus as a leading symptom: clinical characteristics and quality of life in German and Ugandan patients. *Br J Dermatol* 2006;155:957-64.
6. Shibeshi D. Pattern of skin diseases at the University teaching hospital, Addis Ababa, Ethiopia. *Int J Dermatol* 2000;39:822-5.
7. Krajinik M, Zylicz Z. Understanding pruritus in systemic disease. *J Pain Symptom Manage* 2001;21:151-68.
8. Moses S. Pruritus. *Am Fam Physician* 2003;68:1135-42.
9. Polat M, Oztas P, Ilhan MN, Yalçın B, Alli N. Generalized pruritus: a prospective study concerning etiology. *Am J Clin Dermatol* 2008;9:39-44.
10. Zirwas MJ, Seraly MP. Pruritus of unknown origin: a retrospective study. *J Am Acad Dermatol* 2001;45:892-6.
11. Goh CL, Ling R. A retrospective epidemiology study of contact eczema among the elderly attending a tertiary dermatology referral centre in Singapore. *Singapore Med J* 1998;39:442-6.
12. Baghestani S, Zare S, Mahboobi AA. Skin disease patterns in Hormozgan, Iran. *Int J Dermatol* 2005;44:641-5.
13. Krishnaswamy G, Youngberg G. Acute and chronic urticaria. Challenges and considerations for primary care physicians. *Postgrad Med* 2001;109:107-8.
14. Yosipovitch G, Ansari N, Goon A, Chan YH, Goh CL. Clinical characteristics of pruritus in chronic idiopathic urticaria. *Br J Dermatol* 2002;147:32-6.
15. Gaig P, Olona M, Muñoz Lejarazu D, Caballero MT, Domínguez FJ, Echechipia S, et al. Epidemiology of urticaria in Spain. *J Investig Allergol Clin Immunol* 2004;14:214-20.
16. Yosipovitch G, Goon A, Wee J, Chan YH, Goh CL. The prevalence and clinical characteristics of pruritus among patients with extensive psoriasis. *Br J Dermatol* 2000;143:969-73.
17. Reich A, Trybucka K, Tracinska A, Samotij D, Jasiuk B, Srama M, et al. Acne itch: do acne patients suffer from itching? *Acta Derm Venereol* 2008;88:38-42.
18. Piskin S, Uzunali E. A review of the use of adapalene for the treatment of acne vulgaris. *Ther Clin Risk Manag* 2007;3:621-4.