

Symptomatic dermographism in Thai patients

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ABSTRACT:

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Background : Symptomatic dermographism (SD) is a type of physical urticaria in which the patient has hyperreactivity to a stroke or scratch applied to the skin which produces an itchy wheal. There is no data concerning the incidence of symptomatic dermographism in the Thai population.

Materials and methods : We retrospectively reviewed the medical records of patients attending the urticaria clinic of the Department of Dermatology, Siriraj hospital, Mahidol University, during the period January 2000 - December 2001. Demographic data, causative agents, aggravating factors, the natural course of the phenomenon and treatment were analyzed.

Results : Twelve cases were diagnosed with SD. All were women, with an age range from 12 to 61 years (mean $\pm$ SE = 36.9 $\pm$ 4.42 years). A possible cause was found in 1 out of 12 cases (8.3%). This was carcinoma of the sigmoid colon. Other co-incidental findings in other patients were a positive personal history of atopy in 4 cases (33.3%) and a positive family history of atopy in 4 cases (33.3%), dental caries in 2 cases (16.6%), dyspepsia in 2 cases (16.6%), one each case (8.3%) of diabetes mellitus, myoma uteri, and eosinophilia. Our patients responded

well to H_1 antihistamines, which were second and third generation antihistamines in the majority of cases. Clinical improvement was seen in 3-6 months. Some needed the addition of doxepin, a tricyclic antidepressant. The average duration of the disease was 55.6 months.

Conclusions : The prevalence of SD in Thai patients presenting to our dermatology clinic was low when compared with other studies. Most patients had no associated conditions, and responded to the usual regimen for treatment of urticaria. A geographically-based study is further recommended.

Keywords: symptomatic dermographism, urticaria

บทคัดย่อ:

วาศนา ลีลาภิจรพทย์ กนกวลัย กุลทนันทน์ โรคลมพิษจากการขูดขีดในคนไทย วารสารโรคผิวหนัง 2546; 19: 60-65.

ภาควิชาตจวิทยา คณะแพทยศาสตร์ศิริราชพยาบาล มหาวิทยาลัยมหิดล

โรคลมพิษจากการขูดขีด (symptomatic dermographism) เป็น physical urticaria ที่ผิวหนังของผู้ป่วยมีความไวต่อการขีดข่วน เกิดเป็น wheal มีอาการคัน ในปัจจุบันยังไม่มีข้อมูลการศึกษาในคนไทย

วัตถุประสงค์: เพื่อศึกษาข้อมูลเกี่ยวกับโรคลมพิษจากการขูดขีดในคนไทย

วิธีการศึกษา: ศึกษาย้อนหลังจากรายงานผู้ป่วยในคลินิกโรคลมพิษโรงพยาบาลศิริราช ตั้งแต่ปี พ.ศ. 2543-2544 จำนวน 400 ราย

ผลการศึกษา: ผู้ป่วย 12 ราย เป็นผื่นลมพิษจากการขูดขีด ทั้งหมดเป็นเพศหญิง อายุ 12 ถึง 61 ปี หนึ่งรายมีสาเหตุที่น่าจะเป็นไปได้คือมะเร็งลำไส้ใหญ่ ภาวะอื่นๆที่พบร่วมได้แก่ ประวัติส่วนตัวของโรคภูมิแพ้จำนวน 4 ราย (33.3%), ประวัติครอบครัวของโรคภูมิแพ้จำนวน 4 ราย (33.3%), ฟันผุ 2 ราย (16.6%), โรค dyspepsia 2 ราย (16.6%), เบาหวาน เนื่องจกมดลูก และ ภาวะ eosinophilia อย่างละ 1 ราย (8.3%) ผู้ป่วยส่วนใหญ่ตอบสนองต่อการรักษาด้วย H_1 antihistamine อาการมักดีขึ้นใน 3 ถึง 6 เดือน บางรายอาจต้องเพิ่มยาอื่นเช่น doxepin ระยะเวลาเฉลี่ยของโรคประมาณ 55.6 เดือน

สรุปผลการศึกษา: ความชุกของโรคลมพิษจากการขูดขีดในคลินิกผิวหนังโรงพยาบาลศิริราช พบน้อยกว่าเมื่อเทียบกับการศึกษาอื่นๆ ส่วนใหญ่ไม่ทราบสาเหตุที่ชัดเจน โรคตอบสนองดีต่อการรักษาแบบพื้นฐานของโรคลมพิษ ผู้วิจัยเสนอว่าควรมีการศึกษาความชุกของโรคนี้ในประชากรไทยทั่วไปต่อไป

คำสำคัญ: โรคลมพิษจากการขูดขีด

Urticaria is a common skin condition. Physical factors constitute an important cause especially in cases who have chronic urticaria. Dermographism, also known as dermatographism, or skin writing, is a type of physical urticaria referring to the ability of the skin to produce a linear wheal with a scratch pressure of 4,900 gm per square centimeter¹. It is the most common cause of physical urticaria. The prevalence of dermatographism in a healthy population is 4% to 5%^{2,3,4,6}. Among these, only a small percentage exhibit dermatographism accompanied by moderate pruritus called symptomatic dermatographism (SD)^{3,6}.

The purpose of this study was to investigate the prevalence, possible causes or associated findings, response to treatment and the course of the disease in a retrospective review of cases presenting to a hospitalized based clinic with urticaria.

Table 1. Details of the patients studied

Patient No.	Age (yrs)	Possible cause	Associated findings	Course (months)
1	25	-	-	42
2	12	-	-	16
3	12	-	-	5
4	34	-	FAH, Eosinophilia	7
5	35	-	FAH, AH, dyspepsia	16
6	61	-	FAH, DM	21
7	33	-	AH, dental caries, dyspepsia	183
8	53	CA sigmoid colon	FAH, AH	4
9	51	-	Dental caries	-
10	44	-	-	5
11	46	-	AH, myoma uteri	300
12	37	-	-	-

FAH=Positive family history of atopy, AH=personal atopic history

Materials and Methods

Patients

We retrospectively reviewed the case records of patients attending the urticaria clinic of the

Department of Dermatology, Siriraj Hospital, Mahidol University, during the year 2000-2001. The diagnosis of SD was based on a history of itching and the formation of a wheal in response to a stroke.

This was confirmed on physical examination by stroking firmly in a line on the skin of the volar aspect of the forearm using a blunt object. A positive result showed a linear wheal with a flare. The transient wheal appears rapidly and usually fades within 30 minutes. Demographic data, causative agents, aggravating factors, natural course and treatment were analyzed using SPSS version 10.0 for windows using the 95% confidence level.

Results

Of the 400 patients diagnosed with urticaria, 352 cases were diagnosed as having chronic urticaria. Twelve patients met the criteria for a diagnosis of symptomatic dermatographism. All of them had chronic urticaria. All were female, with an age range of 12 to 61 years ($\text{mean} \pm \text{SE} = 36.9 \pm 4.4$ years). No patients had other co-existing causes of physical urticaria i.e. cold, solar, cholinergic, adrenergic or pressure urticaria. Table 1 shows the details of the patients studied. A possible cause of SD was found in 1 out of 12 cases (8.3%). This was the patient who had been diagnosed with carcinoma of the sigmoid colon (well differentiated adenocarcinoma) at the same time as SD. After chemotherapy, her SD subsided and she needed a lower dose and frequency of dosage of antihistamine. A positive personal history of atopy was found in 4 cases (33.3%), and a positive family history of atopy was also found in 4 cases (33.3%). Two patients (16.6%) had co-incident dental caries. Two patients (16.6%) had a

past history of mild dyspepsia but no further investigations for *Helicobacter pylori* had been performed. One patient (8.3%) had eosinophilia (total eosinophil count >500 cell/cu.mm.) but stool examination was negative for parasites. One patient had underlying diabetes mellitus and another had myoma uteri.

Our patients responded well to H_1 antihistamines, which were mostly second generation. Some needed the addition of doxepin, a tricyclic antidepressant. The average duration of the disease was 55.6 months (ranged 4-300 months) ($\text{mean} \pm \text{SD} = 59.90 \pm 100.24$ months) and median = 16 months.

Discussion

Some patients with acute urticaria have a transient dermatographic response that may continue for some time after spontaneous whealing subsides. Of all patients with chronic urticaria, 8 to 15% are reported to have dermatographism⁷. Some of these have coexisting chronic idiopathic urticaria. Of our 400 cases of urticaria, 352 cases were diagnosed as having chronic urticaria. All patients with SD were diagnosed as having chronic urticaria. The prevalence of isolated SD was 3% in this population. However, the prevalence of dermatographism in our patients with chronic urticaria who had spontaneous whealing related to other etiologies was 59.1%. In general, most patients with dermatographism are healthy. However, attacks of whealing and subsequent pruritus may be related to stress and

reduce itching in some patients with severe symptomatic dermatographism.¹⁷

The average duration of the disease in our cases was 55.6 months. Our study is consistent with other studies, i.e. SD lasts for up to 2 years or more.¹

In summary, the prevalence of SD in Thai patients presenting to our dermatology clinic was low when compared with other studies. Most patients had no associated conditions, and responded to the usual regimen for treatment of urticaria. A geographically-based study is further recommended.

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