Evaluation of dermatological disorders among admittances to a 112 emergency services in a year

Bir 112 acil servise bir yıllık başvurulardaki dermatolojik hastalıkların değerlendirilmesi

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ABSTRACT

Objective: This study aimed to determine the clinical characteristics of the patients admitted to 112 emergency services with dermatological disorders in Kayseri city in 2011.

Methods: Data were obtained from the records of Emergency Health Care Services Department. Dermatological reasons for calling the 112 emergency services and dermatological cases diagnosed by physicians of 112 emergency services were recorded. Kayseri has a population for about 1.25 million. Kayseri 112 emergency services contain 45 physicians, 224 healthcare personnel.

Results: In 2011, 2 405 367 calls were occurred in Kayseri, 112 Emergency Service. Of these calls 920 502 (37.5%) real and necessary calls and the rest 1 484 865 (62.5%) were unnecessary calls. A total of 52472 (5.7% of real calls) cases were determined in real calls. Of the cases, 600 (1.14 % of real calls) patients with dermatological disorders were observed. The most common dermatological reason for calling the 112 emergency services was other insect bite (396 calls, 66%) and the most diagnosed dermatological case was other insect bite (396 cases, 66%). Total number of calls about burn were 131 (21.8 %), pruritus were 29 (4.83%), skin wound or infection 18 (3%), bee bite 17 (2.83%), scorpion bite 9 (1.5%).


Key words: 112 Emergency Services, dermatological emergencies, unnecessary calls.

ÖZET

Amaç: Bu çalışmada, Kayseri’de 2011 yılında, 112 Acil Servis dermatolojik şikayetlerle başvuran hastaların klinik karakteristikleri araştırılmıştır.


Bulgular: Kayseri’de 2011 yılında 112 Acil Servisine 2 405 367 arama yapılmıştır. Aramaların 920 502 (37.5%) gerçek ve gerekli aramalar, geri kalan 1 484 865 (62.5%) ise gerekli aramalar olarak tespit edilmiştir. Toplam 52472 (5.7% gerçek aramaları) klinik vaka tespit edilmiştir. Gerçek aramaların 600 (1.14% gerçek aramaları) hastası dermatolojik hastalıklar olarak tespit edilmiştir. 112 Acil servisindeki en sık nedenler; diğer böcek sokmaları (396 arama, %66), yanık (131 arama, %21.8), kaşıntı (29 arama, %4.83) ve deride yara (%3), arı sokması (%1.5) olarak tespit edilmiştir.


Anahtar kelimeler: 112 Acil Servis, dermatolojik acil servisler, yanık, kaşıntı.
INTRODUCTION

Emergencies in dermatology are common and may sometimes be life threatening. In Turkey, 112 Emergency Services admit calls from public. Diagnostic and therapeutic processes performed by 112 emergency services are critical. It is often challenge for a emergency physician to differentiate mundane skin ailments from more serious life-threatening conditions that require immediate treatment. It is important which diseases are real emergencies and which patient apply urgently.\textsuperscript{1,2} There are few studies investigate this topic.\textsuperscript{1,3,4} This study aimed to determine the clinical characteristics of the patients admitted to 112 emergency services with dermatological disorders in Kayseri city in 2011.

METHODS

Data were obtained from the records of Emergency Health Care Services Department and analyzed by using SPSS 17.0 for Windows package program. Kruskal-Wallis H test was performed for comparing monthly and seasonal distributions of calls. Kayseri is a big city in Middle Anatolia Region, with a population for about 1.25 million. Kayseri Province Directorate of Health provides 112 emergency services which contain 45 physicians, 224 healthcare personnel.

RESULTS

In 2011, 2,405,367 calls were occurred in Kayseri, 112 Emergency Service. Of these calls 920,502 (37.5%) real and necessary calls and the rest 1,484,865 (62.5%) were unnecessary calls. A total of 52472 (5.7% of real calls) cases were determined in real calls. Of the cases 39815 (75.8 %) were from urban and 12657 (24.2%) were from rural regions of the city. Of the cases, 600 (1.14% of real calls) patients with dermatological disorders were observed. The most common dermatological reason for calling the 112 emergency services was other insect bite (396 calls, 66%) and the most diagnosed dermatological case was other insect bite (396 cases, 66%). Other insect bites consisted of bites of all insects except scorpion and bee. Total number of calls about burn were 131 (21.8%), pruritus were 29 (4.83%), skin wound or infection 18 (3%), bee bite 17 (2.83%), scorpion bite 9 (1.5 %). These were summarized in Table 1 (Table 1). Calls about pruritus involved 20 acute urticaria and 9 except urticaria in 29 cases. Calls about skin infections was in 11 and ulcer of decubitus was in 7 cases of 18 patients. Numbers of cases were summarized in Table 1 (Table 1). The distributions of dermatological cases according to the months were listed in Figure 2. It is notable that most of the applications take place in August (91 cases, 15.6%) and September (81 cases, 13.5%). However, there is no statistically significant difference between the dermatological complaints regarding the months (p>0.05). The distributions of dermatological cases according to the seasons were listed in Figure 2. Also our study pointed that most of the cases seen in summer (235 cases, 39.1%) and autumn (156 cases, 26%). However, there is no statistically significant difference between the dermatological complaints regarding seasons (p>0.05) (Figure 2).

Table1. The number of calls and dermatological cases in 112 Emergency Service in Kayseri-2011

<table>
<thead>
<tr>
<th>Reasons of calls</th>
<th>n (%)</th>
<th>Diagnosis of cases</th>
<th>n (%)</th>
</tr>
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<tbody>
<tr>
<td>Pruritus</td>
<td>29 (4.83)</td>
<td>Acute urticaria</td>
<td>20 (3.3)</td>
</tr>
<tr>
<td>Other insect bite (except bee&amp;scorpion)</td>
<td>396 (66)</td>
<td>Pruritus (except urticaria)</td>
<td>9 (1.5)</td>
</tr>
<tr>
<td>Scorpion bite</td>
<td>9 (1.5)</td>
<td>Other insect bite (except bee&amp;scorpion)</td>
<td>396 (66)</td>
</tr>
<tr>
<td>Bee bite</td>
<td>17 (2.8)</td>
<td>Scorpion bite</td>
<td>9 (1.5)</td>
</tr>
<tr>
<td>Skin wound or infection</td>
<td>18 (3)</td>
<td>Bee bite</td>
<td>17 (2.8)</td>
</tr>
<tr>
<td>Burn</td>
<td>131 (21.8)</td>
<td>Cellulitis and other skin infection</td>
<td>11 (1.8)</td>
</tr>
<tr>
<td>Total</td>
<td>600 (100.0)</td>
<td>Decubitus ulcer</td>
<td>7 (1.1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Burn</td>
<td>131 (21.8)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>600 (100.0)</td>
</tr>
</tbody>
</table>
DISCUSSION

Public consciousness is important for dialing 112 only in urgent, true dials are someone’s life and health. Making unnecessary 112 calls can endanger the lives of others as precious time is being wasted dealing with these calls whilst other callers are trying to get through. Current study demonstrated 1484 865 (62.5%) unnecessary calls in 2011 in Kayseri.

It is believed that urgent dermatological disorders are rare. In a study, which observed dermatological disorders in emergency service, notified the infectious disorders and drug reactions as the most common. Another study reported eczematous dermatitis as the most frequent dermatological disorder in emergency service. In our study the most common dermatological reason for calling the 112 emergency services was insect bite. Our results were not similar. The difference can be explained with 112 emergency service involved in our study. Also, we did not observe life-threatening dermatomes like pemphigus vulgaris, necrotizing fasciitis, toxic epidermal necrosis or Stevens-Johnson syndrome which may need care similar to that required for a major burn. Early recognition and treatment of these disease can reduce morbidity and mortality.

It is often a challenge for a primary care provider to differentiate common skin disorders from more serious, life-threatening conditions that require immediate intervention. It’s possible to direct the patients through the correct clinics faster and to reduce the disease load by means of a well-organized emergency health care service. Dermatological disorders in 112 Emergency Service are not rare. The purpose of this study is to highlight some dermatologic emergencies. Further studies investigating specific dermatological diagnosis are needed involving the 112 Emergency Service and Emergency Departments in hospitals.

REFERENCES


