Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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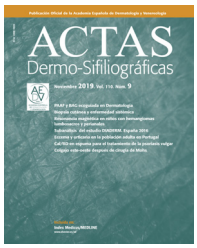

CASE AND RESEARCH LETTER

The Data on Scabies Cases During COVID-19 Pandemic: A Two-Year Analysis From the Largest Portuguese Tertiary Teaching Hospital

Datos relativos a los casos de sarna durante la pandemia de COVID-19: análisis bienal realizado en el mayor hospital docente terciario de Portugal

Dear Editor,

Coronavirus disease 2019 (COVID-19) has affected millions of people globally since it was declared a pandemic, with plenty public health implications worldwide.[1] In an attempt to contain the rapid spread of COVID-19, the Portuguese Government decided to adopt a ''stay-at-home'' policy, leading the population into home confinement. Although routine dermatology outpatient care was not stopped, individuals were asked to avoid visits in nonemergent conditions. Dermatology practice was inevitably affected and it is paramount that dermatologists are acquainted with possible disease pattern changes, including contagious diseases like scabies. Scabies is a skin infestation caused by Sarcoptes scabiei and transmitted by direct skin-to-skin contact.[2] During the pandemic and lockdowns, it would be expected that scabies incidence would reduce due to limited contacts between individuals, especially children when face-to-face education was suspended in schools.

Our study aimed to document the impact of the pandemic on scabies diagnosis in Portugal, where the first COVID-19 case was on March 2, 2020.

A retrospective study was conducted on dermatology emergency consultations (DEC) at Hospital de Santa Maria, Lisbon, Portugal between March 2019 and February 2021. Data were analyzed independently for two consequent 12-month periods, respectively before and after the beginning of the COVID-19 pandemic in Portugal. Epidemiological variables (such as gender and age of patients) and the frequency of scabies were investigated. Diagnosis of scabies was considered definitive if clinically determined without a differential diagnosis or if confirmed by biopsy or exams. Comparative analyses between the periods before and after the first case of COVID-19 in Portugal was performed. Statistical procedures were conducted using IBM-SPSS-Statistics and MS-Excel. Pairwise comparisons (post-hoc) were performed using the z-test with correction for alpha inflation. Two-sided p-values of <0.05 were considered statistically significant.

We analyzed a total of 17880 DEC in the above-mentioned periods. We noticed a sharp reduction of 54% in the number of DEC in the 12-month period after the beginning of the pandemic in our country (5665 vs. 12215) (Table 1). In both periods, scabies diagnosis was more frequent in women (Table 1). The youngest individual diagnosed with scabies was 1 month-old and the oldest 97 years-old. The most represented age group were adults (19–64 years-old) (Table 1). The highest number of scabies diagnosis per day was 8 and this occurred in the period before COVID-19.

In the 12-month period after the first case of COVID-19 in Portugal, there was a total of 276 scabies cases (4.9% of all DEC) compared to 608 (5.0%) in the previous 12-month period, with no statistically significant difference (z-score = 0.303; p = 0.762).

We performed a subgroup analysis to rule out a disparity in scabies cases during the first lockdown in Portugal (March 18–May 2, 2020), compared to the corresponding period of the previous year, showing no statistically significant difference (z-score = −0.619; p = 0.535) (Table 2).

Given the fact that scabies has a 4–6 week incubation period, we also analyzed the 2-month period after lockdown and there was no increase in scabies cases compared to the lockdown period (z-score = 0.381; p = 0.703) (Table 2). There was also no difference when comparing the first lockdown to the corresponding period in the previous year (z-score = 0.158; p = 0.874) or to the post-lockdown period (z-score = −0.287; p = 0.775) in children (Table 2).

In our tertiary teaching hospital in Portugal, the pandemic did not seem to alter the incidence and epidemiology of scabies. Even though there was a significant decrease in overall DEC in the post pandemic period, there was no difference in the proportion of scabies cases, nor in the epidemiologic features of the disease.

Our results differ from previous reports from Spain, Italy and Turkey where there was an increase in scabies incidence during COVID-19 pandemic,[3–6] as a possible consequence of temporary moving from urban to rural areas (where scabies is more common) and increasing close contact between individuals (as a result of the stay-at-home orders).[3–5]

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Table 1 Epidemiological variables and frequency of scabies diagnosis in the study period.

Number of DEC	12 month-period Before COVID-19 in Portugal 12215		12 month-period After COVID-19 in Portugal 5665	
Scabies cases	Number	Percentage	Number	Percentage
Total	608	5.0%	276	4.9%
Male	266	43.8%	120	43.5%
Female	342	56.2%	156	56.5%
Children (0–18 years old)	187	30.8%	55	19.9%
Adults (19–64 years old)	349	57.4%	181	65.6%
Elderly (>65 years old)	72	11.8%	40	14.5%

Table 2 Scabies diagnosis during the first lockdown period, the corresponding period in the previous year and the 2-month period after lockdown.

Number of DEC	First lockdown period 360		Lockdown corresponding period in the previous year 1453		Post-lockdown period 1074	
Scabies cases	Number	Percentage	Number	Percentage	Number	Percentage
Total	21	5.8%	73	5.0%	57	5.3%
Children	7	42.8%	23	31.5%	21	36.8%

One limitation of our study is that it was a single-center analysis. However, our Hospital is the largest Portuguese tertiary teaching hospital and the only one in the country with an open dermatology emergency department, and therefore receives a large amount of DEC. This provided us with a substantial sample size and therefore increases the strength of our findings.

Another limitation is that the study was retrospective and some data such as severity of disease, duration of symptoms and number of cases in cohabitants could not be obtained.

Nevertheless, our study shows that social and cultural differences among countries can lead to different disease processes. Certainly, further epidemiological studies are needed to investigate the prevalence of scabies before and during COVID-19 in order to improve our knowledge about this parasitosis and its management and prevention in particular conditions.

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Conflicts of interest

There are no conflicts of interest to declare.

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