



SHORT PAPER

Emergency dermatology: Three-month experience from an Italian academic outpatient clinic during lockdown for COVID-19 pandemic

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Abstract

Dermatology is a field of medicine where urgent cases occur commonly. However, access to specialized emergency dermatology services is very limited. Following the declaration of the COVID-19 pandemic, the cessation of all elective dermatology visits was widely urged. Accordingly, in Italy, a country severely affected by the pandemic, various measures were applied and the care at university clinics was limited to urgent cases. Here we retrospectively analyzed data of patients who presented at an Italian academic outpatient clinic reserved only for emergency cases. In total, 252 patients (109 males and 143 females) with a mean age of 55.25 ± 20.99 years were cared for at our clinic during a three-month period. We classified 10 patients (4%) as real emergency cases. Pityriasis rosea was diagnosed in three patients. Many patients sought care for skin cancer screening. In 131 patients (52%) dermoscopic skin examinations were performed. In 39 patients (15%), actinic keratosis or non-melanoma skin cancer was detected, while melanoma was diagnosed in three patients, two of which were proven later as in situ melanoma. About 111 patients (44%) visited our clinic for other, nonurgent skin diseases. Our results imply that many patients felt that their skin problems required immediate attention, even if this could not be justified. Melanoma care may be considered an emergency care for its highly malignant potential and the possibility of rapid spreading. Adequately taken photos with a dermoscope may be readily read without the presence of specialist in the emergency room to prevent unnecessary delay in diagnosing oncologic skin diseases.

KEYWORDS

COVID-19, emergency dermatology, pityriasis rosea, skin cancer—melanoma

Dermatology is a field of medicine where urgent cases occur commonly. However, access to specialized emergency dermatology services is very limited, only scarcely available in large centers.^{1,2} Also, due to work force shortages and long wait times for appointments dermatologic care is often provided by less qualified physicians.¹ Following the declaration of the COVID-19 pandemic by the WHO on

11th March 2020,³ the cessation of all elective dermatology visits was widely urged.⁴ Accordingly, in Italy, a country severely affected by the pandemic since February 2020,⁵ various measures were applied and the care at university clinics was limited to urgent cases.^{6,7}

Here we retrospectively analyzed data of patients who presented at an outpatient clinic reserved only for emergency cases at the

Department of Dermatology and Venereology, Sapienza University of Rome, Policlinico Umberto I, Rome, Italy from 2nd March to 4th June 2020. The number of patients each day, their demographic data including age and sex, dermatological diagnosis, body temperature and possible COVID-19 related symptoms (fever, cough, among others) were assessed.

In total, 252 patients (109 males and 143 females) with a mean age of 55.25 ± 20.99 years were cared for at our clinic during this three-month period (Figure 1A). We classified 10 patients (4%) as real emergency cases. Among all patients, no fever or other symptoms that could be related to an ongoing COVID-19 infection were reported upon examination. Only one 31-year-old male patient was subfebrile (37.9°C) who presented with a vesicular rash on 6th May. The mother of this patient tested positive for COVID-19 and he stayed in the same building in a family quarantine. However, repeated SARS-CoV-2 serology and PCR tests came back negative for this patient and his symptoms

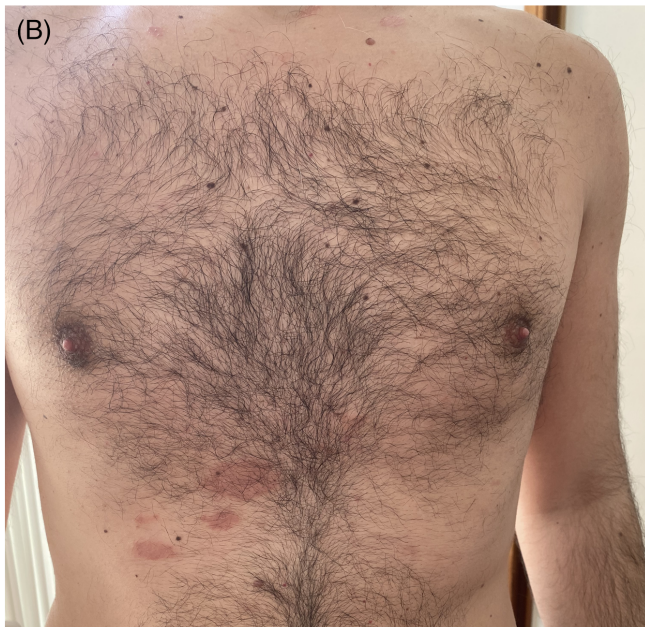
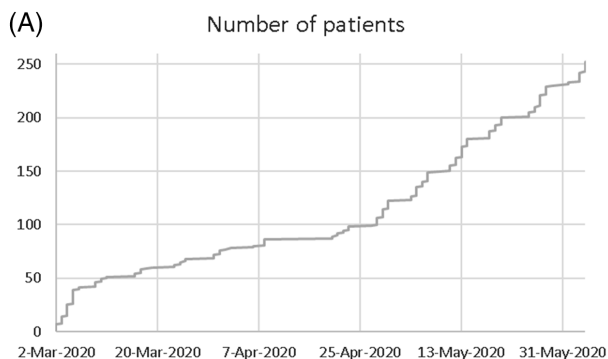


FIGURE 1 A, Total number of patients cared for at our outpatient emergency dermatology unit from 2nd March to 4th June 2020. B, Clinical photograph of one of the patients with pityriasis rosea who had a fever, but COVID-19 was not verified

resolved. Pityriasis rosea was diagnosed in three patients: a male patient, who arrived back from New York City with a 38°C fever on 20th March and was examined on 7th May (Figure 1B), a male patient on 16th March and a female patient on 18th May. Further emergency cases included urticaria, herpes zoster, bacterial dermohypodermatitis, acute gluteal ulcer, and widespread microbial eczema. No hospital admission was needed to treat the diagnosed skin diseases.

Many patients sought care for skin cancer screening. In 131 patients (52%) dermoscopic skin examinations were performed. In 39 patients (15%), actinic keratosis or nonmelanoma skin cancer was detected, while melanoma was diagnosed in three patients, two of which were proven later as in situ melanoma. About 111 patients (44%) visited our clinics for other, nonurgent skin diseases, for example, simple warts and seborrheic dermatitis, mostly as a result that general practitioners and other lower-level providers refused to provide care for them.

Our results imply that many patients felt that their skin problems required immediate attention, even if this could not be justified. This is in line with a recent study showing that most patients with skin complaints visited the emergency department for nonurgent reasons.⁸ In the future, to provide care for nonurgent cases during further COVID-19 outbreaks or other extraordinary circumstances, the use of a teledermatology systems should be considered. This may serve well not only for inflammatory diseases but also for skin cancer check-up. The small percentage of true emergency dermatology cases presented at our department highlight that patients were willing to take significant risk to access dermatologic care during the extraordinary circumstances of the COVID-19 pandemic. Whereas, usually in Italy, emergency dermatology visits are much more frequent from June to August, due to outdoor activities and insect bites.⁹ In the background of the increased patient flow at our university department setting, we presume that a significant factor is that general practitioners did not provide care for the basic cases. Besides, the patients' concerns might be further aggravated by the psychological burden of the COVID-19 pandemic, given that skin changes are easily seen by the patients or family members. Pityriasis rosea was recently reported as a cutaneous manifestation of COVID-19 infection,¹⁰ which we also suspected in three cases, although testing was not available to verify due to the unexpected severity of the Italian COVID-19 outbreak. The high number of skin cancer cases, and even the detection of melanoma in an emergency setting underline that the screening and the care of these patients is continuously needed. Thus, personnel trained in use of dermoscopy and a background consultation service should be available in emergency dermatology units during further possible COVID-19 outbreaks, even if these cases are traditionally not classified as emergencies. Given that the length of COVID-19 pandemic is greatly unpredictable melanoma care may be considered an emergency care for its highly malignant potential and the possibility of rapid spreading. Adequately taken photos with a dermoscope may be readily read without the presence of specialist in the emergency room. This service should be available to prevent unnecessary delay in diagnosing oncologic skin diseases.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

AUTHOR CONTRIBUTIONS

N.K., F.C., S.L., and C.C. conceptualized the study. N.K., F.C., A.B., N.M.W., and C.C. conducted the literature search. F.C., S.L., and C.C. collected patient data. N.K., F.C., S.L., R.M., A.B., and C.C. analyzed and interpreted patient data. N.K., R.M., A.B., N.M.W., and C.C. drafted the article with input from all authors. All authors read and approved the final manuscript.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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