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ORIGINAL ARTICLE

The impact of COVID-19 pandemic in dermatology outpatient clinics in Turkey: A survey study

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Abstract

Background: The COVID-19 pandemic has substantially affected the healthcare systems around the world. It has also induced some changes in working habits at dermatology clinics. The majority of dermatology clinics limited the number of patients at outpatient clinics and postponed the elective procedures.

Aims and Objectives: To evaluate the working conditions and habits of dermatologists in Turkey during the COVID-19 pandemic.

Methods: This is a survey study with seventeen questions in which two hundred fifteen dermatologists working in Turkey participated.

Results: Our results revealed that 53.5% of the participants worked in the areas related to COVID-19 during the pandemic. The average number of dermatology outpatient days in a week was five among the 48.8% of dermatologists, 21.4% of those had three working days, and 18.1% of those had four days. During the pandemic, the most common reasons for referral to outpatient clinics were acne and acneiform eruptions (88.8%), dermatitis (73.5%), and hair loss (71.2%). Participants hesitated to use the following treatments: long-term systemic steroid (77.7%), cyclosporine (69.8%), and methotrexate (60%).

Conclusion: It is observed that the COVID-19 pandemic had affected the working habits and conditions of the dermatologists, which might be considered for the designing of new working approaches.

KEYWORDS
COVID-19, dermatology, survey

1 | INTRODUCTION

SARS-COV-2 is a new virus that can cause pneumonia with symptoms and signs such as fever, cough, dyspnea, and myalgia.[1] This virus has spread into the whole world in a short time and was declared as coronavirus disease 2019 (COVID-19) pandemic by the World Health Organization on March 11, 2020.[2] With the increasing number of cases in the COVID-19 pandemic, the need for health services has increased, and the necessity to change the functioning of health services has arisen.[3] Inpatient services, intensive care units, and outpatient clinics were revised according to the needs, elective procedures were postponed, and interventional practices were limited.[3-6] The effects of the pandemic on dermatologists in different countries have been shown in various studies.[6,7]

The aim of this survey was to evaluate the impact of the COVID-19 pandemic on dermatology clinics in Turkey.

2 | MATERIAL AND METHODS

2.1 | Study design

This cross-sectional study was conducted in Bursa City Hospital, Bursa, Turkey, between November 2020 and February 2021, with the approval of the Local Ethics Committee (2020–11-13T10_43_20).

The survey forms were prepared using the Google Survey program and included 17 questions. The survey forms were distributed via social media groups and e-mail accounts. The questions had multiple choices, and some of those were able to be marked with more than one option. The categories of the questions were as follows: the demographic characteristics of dermatologists, departments worked in the COVID-19 pandemic, the adaptations to COVID-19 regulations at the dermatology outpatient clinics, the common diseases observed during this period, the interventional procedures, the medical and laser treatments, and patient's compliance with the regulations. Participants who filled out the informed consent were able to fill the questionnaire.

2.2 | Statistical analysis

Descriptive statistics for categorical variables were given as frequency and percentage. Statistical analyses were performed with IBM SPSS ver.23.0 (IBM Corp. Released 2015. IBM SPSS Statistics for Windows, Version 23.0; IBM Corp.).

3 | RESULTS

A total of 215 dermatologists participated in the study; 59 were male (27.4%), and 156 of those were female (72.6%). The average age was 39.3 years. One hundred thirty-three of the participants (61.9%) were dermatology specialists, 49 (22.8%) of those were dermatology residents, 20 (9.3%) of those were professors, and 13 (6%) of those were associate professors.

The demographic characteristics of the participants are shown in Table 1.

46.5% of the participants never worked in COVID-related areas, while 44.2% worked in COVID inpatient clinics, and 30.2% worked in COVID emergency outpatient clinics. The average number of dermatology outpatient days in a week was five for 48.8% of the participants, three for 21.4% of those, four for 18.1%, and 11.6% for two days and less.

The most commonly used personal protective equipment was surgical mask (89.3%), lab coat (71.6%), gloves (71.2%), Filtering Face Piece (FFP2/FFP3) masks (53.1%), face shield (42.3%), and scrubs (34.4%), respectively.44.7% of the participants stated that most of the patients used appropriate masks, and 31.6% stated that almost half of the patients used proper masks. 36.7% of the participants noted that the patients did not comply with social distance, whereas 26.5% of the participants stated that almost half of the patients behave in accordance with social distance (Table 2).

TABLE 1 Demographic and characteristics of subjects

	Mean (Min-Max)
Age, years	39.3 (25–71)
	N (%)
Gender	
Female	156 (72.6)
Male	59 (27.4)
Academic title	
Resident	49 (22.8)
Specialist	133 (61.9)
Associate professor	13 (6)
Professor	20 (9.3)
Working experience, years	
0–5	55 (25.6)
5–10	45 (20.9)
10–15	33 (15.3)
15+	82 (31.8)
Institution	
State hospital	23 (10.7)
Tertiary referral hospital	72 (33.5)
University hospital	57 (26.5)
Private practice	63 (29.3)

Table 3 demonstrates the frequency of the diagnoses made during the pandemic. Acne and acneiform eruptions (88.8%), dermatitis (73.5%), hair loss (71.2%), scabies and other infestations (58.1%), pruritus/xerosis/prurigo (55.3%) were the most common diseases, respectively. The frequency of diseases that increased during the pandemic was dermatitis (44.2%), acne and acneiform eruptions (36.8%), scabies and other infestations (27.4%), urticaria (25.6%), and hair loss (24.7%), respectively. The body parts that the dermatologist did not feel safe to examine were the mouth, mucosa, and lips (97.7%) and the nose area (64.2%). Dermatoscopic examination (38.6%), dermo-cosmetic procedures (37.7%), electrocauterization (23.3%), and skin biopsy (20%) were applications and procedures that were not felt safe during the pandemic. 29.3% of the participants did not feel insecure at any procedure and practice.

The most hesitant systemic agents to be used during the pandemic were long-term systemic steroids (77.7%), cyclosporine (69.8%), methotrexate (60%), azathioprine (46%), and biological agents (39.1%).

4 | DISCUSSION

This survey study shows that 53.5% of dermatologists in Turkey were actively involved in areas related to COVID-19, in addition to

TABLE 2 COVID-19 regulations and adaptations at dermatology practice

	N (%)
Working departments	
COVID emergency outpatient clinic	65 (30.2)
COVID inpatient clinic	95 (44.2)
COVID intensive care unit	2 (0.9)
Filiation team	1 (0.5)
None	100 (46.5)
Working days at dermatology outpatient clinic per week	
≤2	25 (11.6)
3	46 (21.4)
4	39 (18.1)
5	105 (48.8)
Number of patients examined in a day at dermatology outpatient clinics	
<20	62 (28.8)
20–40	90 (41.9)
40–60	48 (22.3)
>60	15 (7.0)
Use of personal protective equipment	
Surgical mask	192 (89.3)
FFP2 (N95)/FF3 mask	114 (53.1)
Gloves	153 (71.2)
Face shield	91 (42.3)
Bonnet	54 (25.1)
Lab coat	154 (71.6)
Scrubs	74 (34.4)
Feeling safe at work	
Always	3 (3.4)
Mostly	41 (19.1)
Sometimes	82 (38.1)
Barely	58 (27.0)
None	31 (14.4)
Patient's compliance with the use of mask	
High	96 (44.7)
Moderate	68 (31.6)
Low	51 (23.7)
Patient's compliance with social distance	
High	5 (2.3)
Moderate	55 (26.5)
Low	76 (35.3)
None	79 (36.7)

Abbreviation: FFP, filtering face piece.

TABLE 3 Change in the frequency of diseases and clinical practice in dermatology at COVID-19 pandemic

	N (%)
Most common dermatologic diseases	
Acne and acneiform eruptions	191 (88.8)
Dermatitis (Contact, atopic, nummular)	158 (73.5)
Hair loss	153 (71.2)
Infestations (Scabies, pediculosis)	125 (58.1)
Pruritus, Xerosis, Prurigo	119 (55.3)
Diseases with increased frequency	
Dermatitis (Contact, atopic, nummular)	95 (44.2)
Acne and acneiform eruptions	83 (36.8)
Infestations (Scabies, pediculosis)	59 (27.4)
Urticaria	55 (25.6)
Hair loss	53 (24.7)
The most concerned body part to examine	
Oral mucosa and lips	210 (97.7)
Nose and nasal mucosa	138 (64.2)
Cheek and forehead area	45 (20.9)
Eye and its surroundings	43 (20.0)
Genital area	22 (10.3)
Most concerned dermatological practices/procedures	
Dermoscopy	83 (38.6)
Dermacosmetic procedures	81 (37.7)
Electrocauterization	50 (23.3)
Skin biopsy/excision/curettage	43 (20.0)
Most concerned systemic medications	
Systemic steroids	167 (77.7)
Cyclosporine	150 (69.8)
Methotrexate	129 (60.0)
Azathioprine	99 (46.0)
Biological agents	84 (39.1)

working in the field of dermatology. In the survey study of the international dermatology association that evaluated the working conditions of the dermatologist worldwide, only 76 out of 678 (11.2%) dermatologists worked in the departments related to COVID-19. This study also revealed that 39.1% of dermatologists worked a few days a week, 21.9% of those worked every day of the week in the dermatology outpatients' clinics, and 27.7% of those only worked by using teledermatology technology.[8]

In our study, the most common reasons for referral to dermatology outpatient clinics were acne, dermatitis, hair loss, and scabies. The diseases frequency of which increased during the pandemic were dermatitis, acne, scabies, and urticaria. Acne, urticaria, and scabies were reported as the most common diagnoses for admission to the outpatient clinics in the first ten days following the COVID-19 pandemic in the study of Kutlu et al.[9] In this study, the authors also stated that although the total number of patients

admitted to outpatient clinic decreased compared to the pre-COVID-19 pandemic, the most common reason for the patients to present was acne. It was interpreted that the young patients continued to their follow-up visits, and the use of masks had a role in triggering acne formation. The use of personal protective equipments, increased use of handwashing, and disinfectants during the pandemic period were found to trigger dermatitis.[10] In a survey study, it was demonstrated that the complaints of dryness, erythema, and itching on the hands were exacerbated with increased use of gloves and alcohol-based antiseptics.[11]

It has been stated that hair diseases such as alopecia areata and telogen effluvium increased during the pandemic period. Pandemic-induced psychological stress and hair loss in patients with COVID-19 infection may be effective in this increase.[12-14] In an online survey study conducted in patients with alopecia areata, telogen effluvium, and seborrheic dermatitis, it was shown that although telogen effluvium increased more during the pandemic period, people in these three disease groups admitted to outpatient clinics in less frequency during the pandemic period compared to the pre-period.[15] In our study, dermatologists stated that patients' admissions with the complaint of hair loss increased. Patients' hesitation to enter the hospital environment during the pandemic and stay-at-home policies may have affected the patients' visits to the doctor. We think that hair loss may be a more frequent complaint than observed in outpatient clinics, and this increase may be seen in the future.

In a study conducted in Turkey, it was reported that scabies increased during the pandemic, the rates of which increased more at month three compared to month one following the first case of COVID-19.[16] It is thought that domestic transmission due to staying at home policy also contributed to this result. In another study conducted in Spain, the increase in scabies cases during the pandemic period was related to the home confinement policy.[17] It delayed admission to the hospital until symptoms become evident. It has also been stated that domestic transmission might have had a role in the increase of it.

During the pandemic, it has been shown that the number of patients referred to dermatology outpatient clinics decreased compared to the pre-pandemic period.[9,18] In our study, 41.9% of dermatologists stated that they examined 20 to 40 patients in a day, and 22.3% of those examined 40 to 60 patients in a day. The mask using rates were 89.3% for surgical masks and 53.1% for FFP2/FFP3. In a study conducted in India with 260 dermatologists, 54% of the participants reported that they felt panic, anxiety, and fear due to the pandemic; 50.7% of those thought that their health systems were not equipped to cope with the pandemic.[19] As dermatological examination includes face, lips, oral mucosa, and nasal examinations, it has been more critical to protect dermatologists during the pandemic period. In our study, the examinations that made the dermatologists unsafe were oral mucosa, lips, and nose examinations, respectively. The effective personal protective equipment usage by dermatologists and the level of knowledge and awareness of patients with using masks and social distance compliance can be effective in making them feel safe in outpatients' clinics.

In a study conducted in the United States, it was reported that the number of working days and the average number of skin biopsies requested from patients decreased, and non-urgent appointments were postponed during the pandemic.[7] In our study, we found that participants did not feel safe during dermatoscopic examination (38.6%) and dermo-cosmetic applications (37.7%) mostly. On the contrary, 29.3% of the participants stated that the pandemic had no effect on their practices. The rate of dermatologists hesitating to perform a skin biopsy, excision, and curettage was 20%. Because of the need to be close to the patient for dermatoscopic examination, there is concern that this practice might have a role in increasing the transmission risk of the infection. Eşme et al. reported that the applications for cosmetic reasons decreased during the pandemic, especially skincare, peeling, and laser application.[20]

Systemic immunosuppressive medications and biological agents, especially the tumor necrosing factor alfa inhibitors, were used for some dermatological diseases such as psoriasis and autoimmune bullous diseases. The impact of these agents for causing susceptibility to infection during the pandemic period has been a challenging point for dermatologists.[21] In our study, the dermatologists reported that the long-term systemic steroids, cyclosporine, methotrexate, azathioprine, and biological agent treatments were the agents they hesitated the most to initiate to the patients. In a survey study that involves 146 dermatologists from Argentina, 64.9% of the participants evaluated the immunomodulatory/immunosuppressive therapy continuity on a case-by-case basis, 25.7% considered the strengthened stimulant guidelines, and 8.8% stated that there was no change in their treatment.[22] Older age and accompanying comorbidities may pose a risk for infection regardless of the immunosuppressive/immunomodulatory agents used in the treatment of psoriasis patients.[23] In a study conducted in Italy, no significant increase in hospitalization and mortality rates was observed in psoriasis patients using biological agents.[24] The fact that these patients had comorbidities such as obesity, cardiovascular diseases, diabetes, and hypertension made this result more meaningful. Our study shows that dermatologists considered biological agents safer than long-term systemic steroids, methotrexate, cyclosporine, and azathioprine. A case-based approach is recommended with careful use of these agents, giving priority to alternative therapies and evaluating accompanying comorbidities, especially in risky areas where many cases are present.[21-23]

In conclusion, the COVID-19 pandemic has dramatically affected dermatology practice. In Turkey, dermatologists have been working in areas related to COVID-19, in addition to their work at dermatology outpatient clinics. Identifying the impact of the pandemic on dermatologists will contribute to more predictable management of this approach.

CONFLICT OF INTEREST

The author declares no conflict of interest.

ETHICAL STATEMENT

The approval of Local Ethics Committee was obtained for this study.

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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