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Psoriasis and Psoriatic Arthritis in the Context of the COVID-19 Pandemic: A Plenary Session From the GRAPPA 2020 Annual Meeting

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ABSTRACT. The coronavirus disease 2019 (COVID-19; caused by SARS-CoV-2) pandemic has affected the healthcare system on a global scale, and we utilized the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) 2020 annual meeting to examine how COVID-19 might affect patients with psoriatic disease (PsD) and the clinicians who care for them. Pressing issues and concerns identified included whether having psoriasis increased the risk of acquiring COVID-19, vaccine safety, and the acceptability of telehealth. The general message from rheumatologists, dermatologists, infectious disease specialists, and patient research partners was that data did not suggest that having PsD or its treatment significantly increased risk of infection or more severe disease course, and that the telehealth experience was a success overall.

Key Indexing Terms: COVID-19 pandemic, psoriasis, psoriatic arthritis

This year's annual Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) meeting occurred at an unprecedented time, in the midst of a global pandemic that has affected everyone on the planet in one way or another. We are being advised to shelter in place to the extent that we can, to conduct our work virtually if possible, and to maintain social distancing and cautious personal hygiene. Our lives (social, work, recreational) have been upended. The annual meeting planning committee felt that it would be appropriate to devote a session to address some of the major issues confronting us as health practitioners and patients in the midst of this global crisis. The session includes lectures on the coronavirus disease 2019 (COVID-19; caused by SARS-CoV-2) pandemic from an in-the-trenches perspective from New York City (NYC). In addition, perspectives of the COVID-19 pandemic from different viewpoints were presented: from the patient perspective, from an infectious disease perspective, and from a dermatologist's perspective.

Current Clinical Practices During the COVID-19 Pandemic

As part of the GRAPPA COVID-19 discussion, participants were engaged in a brief interactive polling session, both before and after content presentations on COVID-19. The questions focused broadly on the effect on practice, including themes such as telehealth utilization, infection risk perception, and patient management during the pandemic.

As part of the supplement series GRAPPA 2020, this report was reviewed internally and approved by the Guest Editors for integrity, accuracy, and consistency with scientific and ethical standards.

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The presession polled over 50 conference participants to assess clinical practices and attitudes over the past few months (May–June 2020) during the pandemic. The use of virtual medical visits has become more popular in an effort to reduce potential COVID-19 exposures during in-person clinic visits. The use of virtual visits (through telehealth) ranged from 83% to 95% for patients with psoriasis or PsA. As shown in Figure 1, the use of virtual visits was less frequent if the patient was new (48% reported that only 1–25% visits were virtual), while the use of virtual visits was more common for established patients (46% reported that 76–100% used virtual visits). Modification of systematic medications in psoriatic patients (dose adjustment or discontinuation) was more commonly due to treatment-associated concerns (64%) compared to concerns over increased risk of adverse reactions in COVID-19 patients (47%). As shown in Figure 2, medication changes were not common (60% reported only changing medications in "a few" patients due to treatment concerns, and 38% reported modifying medications due to COVID-19 in "a few" patients). As telehealth is becoming more popular, 10 statements were provided on the survey and participants chose all that they felt applied as relevant to PsD care. The top 5 of 10 statements chosen were as follows: (1) "[telehealth is] a barrier to diagnosis of patients and should be kept to a minimum" (18%, n = 25); (2) "I feel that telehealth has kept my patients, staff and myself safer during this time" (17.3%, n = 24); (3) "[telehealth is] a useful resource for follow-up/monitoring of patients and should have a greater role in healthcare delivery post COVID-19" (17.3%, n = 24); (4) "[telehealth is] a useful resource that strengthens the patient-physician relationship and should have a greater role post COVID-19" (12.2%, n = 17); and (5) "[telehealth is] a useful resource to facilitate treating patients and should have a greater role post COVID-19" (11.5%, n = 16).

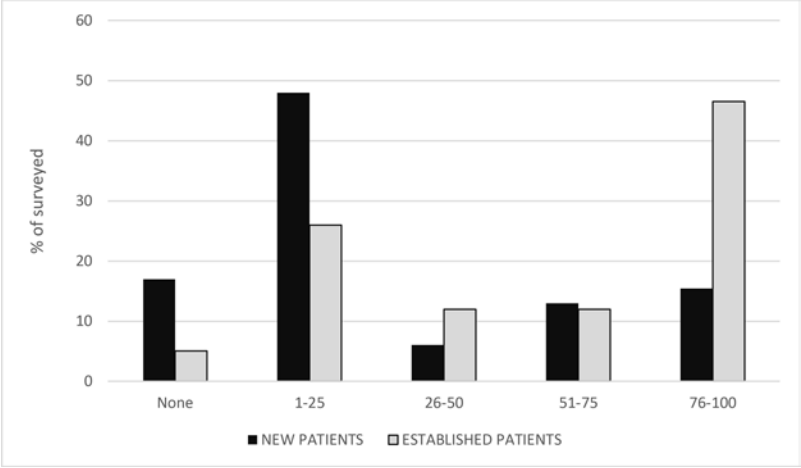

Figure 1. Percentage of surveyed GRAPPA members who manage new patients (black bars) with psoriasis or psoriatic arthritis virtually (n = 32) compared to established (gray bars) patients (n = 43) in the past 2 months (May–June 2020) during the COVID-19 pandemic. COVID-19: coronavirus disease 2019 (caused by SARS-CoV-2); GRAPPA: Group for Research and Assessment of Psoriasis and Psoriatic Arthritis.

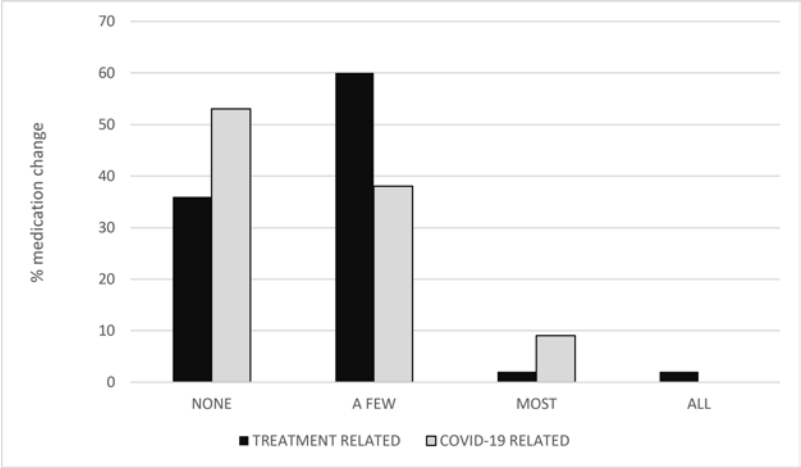

Figure 2. Percentage of surveyed GRAPPA members who have adjusted or discontinued systematic psoriatic medications due to concerns about treatment-associated adverse reactions (black bars) compared to concerns relating to COVID-19 infection (grey bars). COVID-19: coronavirus disease 2019 (caused by SARS-CoV-2); GRAPPA: Group for Research and Assessment of Psoriasis and Psoriatic Arthritis.

An Overview of COVID-19 Pandemic and Rheumatology by Leonard Calabrese

As of December 2020, we are now nearly a year into the COVID-19 epidemic and there have been several iterations of recommendations from both the American College of Rheumatology (ACR) and the European League Against Rheumatism that are very much in alignment with the National Psoriasis Foundation (NPF).

There are 2 questions at hand at this time that deserve careful monitoring. First, what do we know about the outcomes of immune-mediated inflammatory disease (IMID) populations with COVID-19, especially those on targeted therapies? Fortunately, we now have data from 3 registries trying to address this question, including the COVID-19 Global Rheumatology Alliance, the STOP-IBD registry, and the PsoProtect. The Global Rheumatology Alliance has demonstrated that, in general, patients with rheumatic disease have similar COVID-19 disease symptoms to the general population unless their cases are complicated by comorbidities (e.g., diabetes, morbid obesity, cardiovascular disease). Other documented factors affecting outcomes were the negative effects of having uncontrolled disease, reminding us of the importance of maintaining therapies during the pandemic. Regarding the important question on the effects of targeted therapies and other treatments, 4 drugs correlated with an increased risk of death, namely being on no disease-modifying antirheumatic drug (DMARD) at all, or being on sulfasalazine, rituximab (RTX), or prednisone in daily doses of 10 mg or greater. Other biologics were not associated with increased risks. Being on a TNF inhibitor was associated with a lower rate of severe outcomes and this was corroborated by information from both the STOP-IBD database and PsoProtect database. Collectively, these data support the general guidelines across specialties that advocate for standard treatment with the goal of tight control of disease activity and minimal doses of glucocorticoids (GCs).

The second question was, "What should we be telling our patients regarding the COVID-19 vaccine?" Clearly this is a moving target, since as of December 2020 we have only begun to roll out COVID-19 vaccines to tier 1 patients, which does not include IMID patients. We have no data on efficacy or safety in patients with IMID who require immunosuppressive therapies. I do not see any major initial issues in recommending the COVID-19 mRNA vaccines for patients with IMID and, unless they are on the most immunosuppressive agents demonstrative of inhibiting vaccine responses (i.e., RTX, methotrexate [MTX]), they are predicated to respond; however, this must be studied carefully. All leading COVID-19 vaccines under development are nonliving vaccines, so they do not pose the risks of that class of vaccines. We wait early vaccine trials in IMID patients receiving various immunosuppressive therapies.

COVID-19 in NYC: The New York University Experience by Rebecca Haberman

By March 2020, NYC had become the new epicenter of the COVID-19 infection in the US. The first case was reported on February 29, 2020, and by the end of June, NYC had already seen 210,908 reported cases and 17,753 deaths. In response, New York University (NYU) Langone Health transformed virtually overnight. Empty wards were reopened and all existing units were quickly converted into intensive care units (ICUs) and high-acuity wards. To put it into perspective, as of May 17, 2020, there were 2376 patients with COVID-19 admitted, 526 of whom required ICU-level care. Providers from every department were recruited to deliver inpatient care to these patients.

Our outpatient rheumatology care became almost completely composed of telehealth visits. Telehealth was found to have benefits over in-person care, but it also has its limitations. It provides ease and accessibility to patients, prevents any exposure to COVID-19 from the office or during a commute, and can add a sense of intimacy to see patients in their home environments. However, it is difficult to perform an accurate physical examination, obtain needed laboratory tests, or do imaging. There is also no substitute for physical touch and seeing a patient's body language. In all, we found telehealth to be much more suitable for established patients and much harder to utilize for new patient visits.

Whether in person, by telehealth, by phone, or by electronic messaging, however, we received one question over and over from our patients: "What do I do with my medications?" Unfortunately, we were limited by a vacuum of evidence on this question. To fill this gap, we established Web-based Assessment of Autoimmune, Immune-Mediated, and Rheumatic Patients during the COVID-19 Pandemic (WARCOV), a prospective cohort study of patients with IMID, including inflammatory arthritis, psoriasis, and inflammatory bowel disease, during the COVID-19 pandemic. Our first aim was to characterize the symptomatology and disease course of patients with IMID who were infected with COVID-19. Our initial analysis found a 16% hospitalization rate in 86 patients with IMID and identified GCs as a possible risk factor for hospitalization. We followed this up with a study looking at the first 103 patients with inflammatory arthritis (including rheumatoid arthritis, PsA, and ankylosing spondylitis; unpublished data). We found a hospitalization rate of 26%, which was similar to the hospitalization rate of the general NYC population at that time, and a death rate of 4%. Hospitalized patients were more likely to be older and have comorbid hypertension or chronic obstructive pulmonary disease, similar to characteristics predicting the need for hospitalization in the general population. In terms of immunomodulatory medications, we found that chronic use of GCs, even at doses of less than 10 mg of prednisone daily (or the equivalent), increased the risk of hospitalization. As an overall group, anticytokine therapies did not affect COVID-19 outcomes.

Our research progresses as we continue to recruit patients, focusing on (1) determining the incidence of COVID-19 in our inflammatory arthritis and psoriasis populations, and (2) identifying clinical and basic factors that may prevent the development of COVID-19 symptoms.

The Patient's Perspective on COVID-19 and PsD by Rodrigo Firmino

To determine how the COVID-19 pandemic was affecting

patients with PsD, we conducted a survey among our group of patient research partners (PRPs). Our aims were to help doctors understand the patient's perspective concerning the new COVID-19 pandemic in relation to PsD, to provide doctors with patients' views on the use of telehealth, and to identify questions and concerns directly from patients.

The PRP group is small but heterogeneous. Thus, experiences vary due to different ways in which PsD and COVID-19 are tackled in each country. The survey was formed by a 4-block questionnaire, with anonymous answers from Google Forms with the following blocks: (1) perceptions from PRPs who have not contracted COVID-19; (2) perceptions from PRPs who have contracted COVID-19; (3) experience with telehealth; and (4) questions for panelists. An important distinction among all responses is that only 1 patient declared the possibility of having contracted COVID-19, diagnosed by symptoms. This patient reported more active PsD and a longer path to recovery from COVID-19 compared to their partner.

Regarding patients' general perceptions of COVID-19 and its severity, the majority of PRPs raised concerns about the possibility of contracting the disease. Many—but not all—PRPs are more concerned about the risk from their immunosuppressive medications than about the risk from PsD itself. About 70% of respondents were concerned with having a more severe response to COVID-19, due either to their disease or the nature of their medications. With the exception of the PRP who contracted COVID-19, treatments for PsD were not changed. There was also a list of other broader issues, which can be summarized in 3 main groups: (1) issues related to mental health, anxiety, and emotions, mainly induced by the conditions surrounding the pandemic and doubts related to COVID-19; (2) the possibility of contracting COVID-19, but also of being severely affected by it; and (3) a permanent state of vigilance to remain as safe as possible and uncertainty about the time it will take to get back to normal.

Regarding the use of remote consultations, the majority of PRPs (80%) had some experience with telehealth during the COVID-19 pandemic, with access to this being reported as fast or very fast for most PRPs. There was a general concern about doctors being less able to identify issues that come through more nonverbal cues, such as fatigue and mental well-being. This was also due to patients feeling less confident or empowered who may not present their concerns as completely over the phone/video in comparison to a face-to-face visit, when a doctor may be able to probe, and again pick up on the nonverbal cues.

Finally, PRPs pointed out that reliable information would help patients cope better with the risk of COVID-19 infection. While there was general concern about the risk of catching COVID-19 and having a more severe experience, as well as with mental well-being and stress during the pandemic, patients see telehealth as a good alternative, especially in times of restricted access to face-to-face consultations.

An Infectious Disease Physician's Perspective on COVID-19 by Kevin Winthrop

My optimism displayed during the GRAPPA 2020 meeting about having some solutions in place by the end of the year is somewhat diminished, as here we are at the end of the year with historic caseloads across the US, Asia, and Europe. There have been many advances and exciting developments since the time of the GRAPPA meeting in July 2020. The ability to test patients has improved, the ability to treat patients has improved, in-hospital mortality (i.e., the percent of sick patients who die) has decreased, and we have started to vaccinate healthcare workers in the US and Europe. The next 3 months will be critical, as the virus has established itself as endemic, and in my mind, clearly displays a seasonality in following weather that forces people to congregate indoors (e.g., cold weather in Oregon and hot weather in Georgia).

While we lack the blockbuster COVID-19 therapy we were hoping for, the therapies studied to date and their results are promising. The antiviral approaches, namely remdesivir and the monoclonal antispike protein antibodies, have some efficacy if used very early on during disease, but lack efficacy if employed later in the disease course. Conversely, the use of antiinflammatory therapies has been effective if started later in the disease course but will likely hurt or have no value if started too early. To date, the only antiinflammatory compounds to show efficacy convincingly in randomized controlled trials (RCTs) has been dexamethasone. The interleukin (IL)-6–blocking therapies have failed to meet their primary endpoints in nearly all RCTs. Interestingly, the Janus kinase inhibitor (JAKi) baricitinib was recently given emergency use authorization by US Food and Drug Administration for showing efficacy when given on top of the antiviral remdesivir. While the benefits of this intervention were modest, they suggested efficacy, and I suspect baricitinib is providing benefit in 2 ways, being both antiviral and antiinflammatory. A number of other compounds are still in development, and I anxiously look forward to the results of RCTs using anakinra, abatacept (ABA), IL-17 blockers, and other compounds.

Finally, a word on vaccination: We have witnessed emergency authorization for 2 mRNA vaccines in the last week (December 2020). Both vaccines (Pfizer and Moderna) have reported efficacies of over 90% and both appear safe in trials consisting of 30,000–40,000 patients. Reactogenicity is fairly common (local or systemic vaccine reactions such as myalgia, fever, and arthralgia), particularly among younger people, but these reactions are self-limited and generally mild. The most common questions I get from rheumatologists and patients are: "Should I receive the vaccine and is it safe for me?" and "Will my DMARD negatively affect the efficacy of the vaccination, and should I temporarily stop them around the time of vaccination?" To address the first question: Yes, patients should get vaccinated when they have access to the vaccine. Yes, they are safe, although the chance of the vaccines causing flares of underlying autoimmune disease is an open question. These types of vaccines elicit a strong type 1 interferon response, so it is quite possible they could potentiate a flare. Good disease control should diminish any potential flare risk, as would the continued use of DMARDs during the vaccination. The second question was about whether DMARDs will diminish immunogenicity and efficacy of the vaccines. It is possible certain DMARDs will

do so, particularly those that interfere with interferon signaling (e.g., JAKi). MTX has been shown to diminish pneumococcal and influenza responses. ABA likely would diminish responses to T cell–dependent vaccines. RTX of course annihilates humoral responses to vaccines, and any vaccine should be given as far as possible from its last infusion. That said, it is hard to extrapolate our experiences with any of these or other DMARDs and this new mRNA vaccine platform. I and others are planning studies to address these questions. Stay tuned and get vaccinated when you can!

A Dermatologist's Perspective on COVID-19 by Kristina Callis Duffin

Early in the pandemic, dermatologic manifestations of COVID-19 were underreported, with early reports emerging from China citing just a "rash."[1] As the world gained more experience and information about COVID-19, numerous dermatologic findings associated with the disease were described. The first published classification categorized them into 4 groups: (1) blanching rashes (mild, urticarial, or morbilliform eruptions; (2) nonblanching (vascular) rashes (petechial, livedo reticularis–like, pernio- or chilblains-like [dubbed "COVID-toes"], or severe vasculopathies), (3) vesicular eruptions (that look like varicella clinically but not histologically), and (4) multisystem inflammatory syndrome in children that was initially described as "Kawasaki-like" but with several clinical differences.[2]

By the summer of 2020, a few observations of cutaneous psoriasis associated with COVID-19 were published. Viral infections are known to flare psoriasis, and 1 case of guttate psoriasis during COVID-19 infection has been reported.[3] One case report described a patient with a flare of psoriasis following COVID-19 infection, which regressed with therapies given for COVID-19 (hydroxychloroquine [HCQ], azithromycin, oseltamivir, and inhaled steroids).[4] However, another report described a widespread exacerbation of psoriasis following administration of HCQ and oseltamivir.[5] Flare of psoriasis with HCQ is well described, and a recent literature review of 18 cases suggested that *de novo* psoriasis can occur.[6] Additionally, it is general knowledge that concomitant systemic corticosteroids, including dexamethasone, may pose a risk of serious flare or new onset of pustular psoriasis.

Pandemic-associated adverse cutaneous events, such as irritant or allergic contact dermatitis related to the use of personal protective equipment (PPE) and frequent handwashing or sanitizing, were reported following the SARS-CoV-1 outbreak.[7] Mask-induced psoriasis from rubbing, resulting in the Koebner phenomenon, has also been reported.[8] Patients with psoriasis on their hands may be at increased risk of concomitant irritant and allergic contact dermatitis flaring their psoriasis as well.

Early in the pandemic, many dermatology journals published opinion-based letters and editorials raising questions around the risk-benefit ratio of prescribing immunosuppressants and biologics for cutaneous disease. Anecdotally, this concern caused many patients and their healthcare providers to interrupt systemic agents and biologics, or hold off on starting them. Now that there are more data supporting the absence of independent risk related to biologic use, organizations such as GRAPPA, ACR, and NPF are reviewing recommendations, and the opinion is largely to not stop biologics.[9]

Discussion Session

Lori Schick, a PRP from Toronto, Canada, commented that she had learned a good deal from the session lectures, including the fact that, at least at the moment, evidence suggested that having psoriasis and/or PsA does not add to the risk of contracting COVID-19 or having a more severe course if contracted, nor did the immunomodulatory medicines being employed for treatment add to such risk. She reflected that PRPs in GRAPPA had not had much concern about the former issue, but did express that there was considerable concern about the risks involved with being on immunomodulatory medicines. She also focused on discussing the mental health effect of the pandemic as being considerable. Regarding telehealth, she pointed out that patients could significantly differ, with some feeling less empowered to represent themselves well in a virtual environment, especially those whose relationship with their healthcare practitioner was not as deep and established. She pointed out the importance of not being able to read body language in the virtual interaction.

Leonard Calabrese was asked, "Why is there a 40% less risk for hospitalization reported in the early data from the Global Rheumatic Disease and COVID-19 registry for COVID-19–infected patients who had been on TNF inhibitors?" The response was to take this data, as well as other early data, "with a grain of salt"—that is, that we will be constantly revising our understanding of this and other points as the weeks and months go by and as we have more data available.

Jose Scher, along with Rebecca Haberman, helped staff inpatient units at NYU during the height of the spring pandemic. At first, careful wearing of PPE was "spotty," but when 2 of the staff became infected after not diligently masking, PPE was taken more seriously. Even those who were infected, after fully recovering, were back on the wards, testifying to the dedication of staff. Rebecca was in the COVID-19 ICU, where strict PPE usage was maintained, and no one in that setting became infected.

When to restart biologics or targeted synthetic DMARDs after recovering from COVID-19? Jose Scher pointed out that some of their rheumatic disease patients did not stop these medicines during the time of their COVID-19 infection, while others did. There is no clear guidance regarding the question, but Scher suggested "perhaps 2 weeks" after resolution of COVID-19 symptoms would be a good time to resume these medications. There was general consensus among the panel that steroids, especially higher-dose steroids, should be avoided as much as possible. The exception could be the very ill ICU patients who are in a "cytokine storm," during which dexamethasone has shown some evidence of benefit. There remains a debate about whether or not MTX should be stopped when patients develop a COVID-19 infection.

Kristina Callis Duffin and Joseph Merola discussed "COVID toes," which appears to be a vasculopathy similar to chilblains. Although much of the condition could be a vasculitis response

to systemic infection with the virus, there is evidence from biopsies that there is actual viral infection in the vessel walls in some cases. This condition may also occur in patients who test negative for COVID-19 with a nasal swab PCR test.

Rodrigo Firmino, a PRP from Brazil, described the rising number of COVID-19 cases seen in his country and how confusing it was for the populace to be receiving mixed messages from the president, who is dismissive of the seriousness of the pandemic, and the regional governors or mayors, who more diligently convey public health messages such as the importance of masking.

When asked about the durability of antibody response after COVID-19 infection or after vaccination, Leonard Calabrese indicated that it was a "work-in-progress," and as our experience evolves and our understanding deepens, we will be able to determine an answer to this question.

Effect of the session on future clinical practices. Following presentations in this session, participants again had the opportunity to engage in an interactive polling session relevant to the preceding content. Postsession polling specifically evaluated the effect the session had on the participants' future practices regarding COVID-19 in their clinics. The following questions were asked: "Considering the content and discussion of this session, how worried are you about being infected with COVID-19 as part of your outpatient practice exposure?" (not worried at all [15.8%, n = 6], somewhat/slightly [63.2%, n = 24], very [7.9%, n = 3], extremely [13.2%, n = 5]); and "Has the content and discussion of this session changed the way you will discuss COVID-19 risk and perception of risk with your patients?" (yes [47.4%, n = 18], no [50%, n = 19], don't know [2.6%, n = 1]). The participants were also asked how this session might change the way they will manage their patients with PsD during the pandemic. The following responses were received: "I feel more confident maintaining effective systemic therapy in my psoriatic patients and will move in that direction of management" (17.3%, n = 7), and "My practice already aligned with the content discussed and will continue as such" (76.7%, n = 33). The limitations of these data include the inability to stratify results by provider type and other potentially pertinent demographic features.

Summary

In the midst of the COVID-19 pandemic, we continue to learn and gather information on how this virus may affect patients with psoriasis and PsA. Although patients with PsD appear not to have an increased risk of COVID-19 infection compared to the general population, the use of immunomodulatory medications should be carefully considered, and lower doses of GCs may be advisable in an active COVID-19 case. The new COVID-19 vaccines were recommended, whereas careful monitoring in IMID patients was found to be warranted. The use of telehealth to lessen crowded healthcare facilities for established patients was acceptable, but concerns were noted if the patient was newly diagnosed, in that laboratory and diagnostic tools are not as accessible using telehealth. Continued vigilance and research should help to address patient and clinician concerns and deepen our understanding of this disease in the context of patients with autoimmune disease.

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REFERENCES

1. Guan WJ, Ni ZY, Hu Y, Liang WH, Ou CQ, He JX, et al; China Medical Treatment Expert Group for COVID-19. Clinical characteristics of coronavirus disease 2019 in China. N Engl J Med 2020;382:1708-20.
2. Ortega-Quijano D, Jimenez-Cauhe J, Selda-Enriquez G, Fernandez-Guarino M, Fernandez-Nieto D. Algorithm for the classification of COVID-19 rashes. J Am Acad Dermatol 2020;83(2):e103-4.
3. Gananandan K, Sacks B, Ewing I. Guttate psoriasis secondary to COVID-19. BMJ Case Rep 2020;13:e237367.
4. Ozaras R, Berk A, Ucar DH, Duman H, Kaya F, Mutlu H. COVID-19 and exacerbation of psoriasis. Dermatol Ther 2020;33:e13632.
5. Kutlu Ö, Metin A. A case of exacerbation of psoriasis after oseltamivir and hydroxychloroquine in a patient with COVID-19: will cases of psoriasis increase after Covid-19 pandemic? Dermatol Ther 2020;33(4):e13383.
6. Sachdeva M, Mufti A, Maliyar K, Lytvyn Y, Yeung J. Hydroxychloroquine effects on psoriasis: a systematic review and a cautionary note for COVID-19 treatment. J Am Acad Dermatol 2020;83:576-86.
7. Foo CC, Goon AT, Leow YH, Goh CL. Adverse skin reactions to personal protective equipment against severe acute respiratory syndrome--a descriptive study in Singapore. Contact Dermatitis 2006;55:291-4.
8. Mutalik SD, Inamdar AC. Mask-induced psoriasis lesions as Köebner phenomenon during COVID-19 pandemic. Dermatol Ther 2020;33:e14323.
9. Gelfand JM, Armstrong AW, Bell S, Anesi GL, Blauvelt A, Calabrese C, et al. National Psoriasis Foundation COVID-19 task force guidance for management of psoriatic disease during the pandemic: version 1. J Am Acad Dermatol 2020;83:1704-16.