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LETTER

Recommendations for treatment of nail lichen planus during the COVID-19 pandemic

Dear Editor,

Dermatologists are facing unprecedented challenges due to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in caring for their patients. Treatment algorithms utilized prior to the coronavirus disease 2019 (COVID-19) pandemic are no longer applicable.[1] Nail lichen planus (NLP) is a true nail emergency, sometimes with an aggressive course, resulting in scarring, permanent nail loss, and significant impact on daily activities.[2] Treatment of NLP is difficult, and topicals are generally not preferred due to poor nail plate penetration and compliance.[3] Thus, intralesional and systemic therapies are mainstays of

TABLE 1 Studies on nail lichen planus treatments with rates of adverse events/infections

Reference	Study type	Medication (route of administration): dosage (number of patients)	Adverse event (n, %)	Any infection (n, %)
5	Case report	Alitretinoin (oral): 30 mg daily (N = 1)	None reported	None reported
6	Case series	Alitretinoin (oral): 30 mg/day for 3 months and 10 mg/day for 3 months (N = 3)	Mild skin dryness (unknown)	None reported
7	Case report	Alitretinoin (oral): 30 mg daily (N = 2)	Headache (N = 1, 50%), elevated liver enzymes (N = 1, 50%), diverticulitis (N = 1, 50%)	None reported
8	Case report	Etretinate (oral): 30 mg daily for 1 month, then 20 mg daily for 8 months, and then gradually reduced until discontinuation (N = 1)	None reported	None reported
9	Retrospective study	Prednisone (oral): 0.5 mg/kg (N = 15)	None reported	None reported
		Triamcinolone acetonide (intramuscular): 0.5 mg/kg per month (N = 2)	None reported	None reported
		Triamcinolone acetonide (intralesional): 5 mg/mL every 4 weeks (N = 4)	None reported	None reported
10	Prospective study	Triamcinolone acetonide (intralesional): 5 mg/mL monthly for 6 months (N = 12)	Unknown	Unknown
11	Retrospective study	Triamcinolone acetonide (intramuscular): 0.5-1 mg/kg per month (N = 10)	Lipoatrophy at site of injection (N = 2, 20%), cushinoid facies (N = 1, 10%)	None reported
12	Case report	Triamcinolone acetonide (intralesional): 10 mg/mL (N = 1)	None reported	None reported
13	Retrospective study	Triamcinolone acetonide (intralesional): 10 mg/mL monthly (N = 8)	Transient subungual hemorrhages (N = 2, 25%)	None reported
		Triamcinolone acetonide (intramuscular): 0.5 mg/kg monthly (N = 67)	None reported	None reported
14	Prospective study	Triamcinolone acetonide (intradermal with needleless injector): 5 mg/mL monthly (N = 11)	Slight, transient atrophy (unknown)	None reported
15	Case report	Chloroquine phosphate (oral): 250 mg twice daily for 30 weeks and then 250 mg once daily for 4 weeks (N = 1)	None reported	None reported
16	Case report	Cyclosporine (oral): 3 mg/kg (100 mg twice a day) (N = 1)	Hypertension (N = 1, 100%)	None reported

NLP treatment. Immunosuppressants play key roles in NLP treatment; however, their use may be a COVID-19-related mortality risk factor.[4] Therefore, we analyzed adverse event data in NLP patients receiving intralesional or systemic therapies and provided therapeutic recommendations.

Data on the adverse events upon treatment of NLP are displayed in Table 1. There were no reported infections in any of the studies. Triamcinolone acetonide (TAC) is considered first-line treatment for NLP.[3] The intralesional route is recommended in the absence of nail bed disease.[3] Intramuscular TAC is considered as an adjunct to intralesional administration for severe disease, particularly if >3 nails are affected; for nail bed lichen planus features,[17] intramuscular administration is favored.[3] Intralesional administration-related side effects are mild, including nail plate atrophy, subungual hematoma, and transient digit numbness[3]; the risk of systemic toxicity is negligible. Although intramuscular TAC and prednisone-related infections have not been reported in NLP patients (Table 1), studies are small and because they are both immunosuppressants, there are at least theoretically increased infection risks. Since intralesional/intramuscular TAC administration requires an in-person visit, these injections should be discontinued during the pandemic. Superpotent topical steroids under occlusion or oral non-immunosuppressants are preferred. An in-office visit for intralesional/intramuscular injections can be considered on a case-by-case basis if NLP is progressive despite the use of alternative topical or systemic treatments.

Retinoids are considered second-line treatment for NLP.[3] They do not suppress the immune system to the same extent as systemic corticosteroids; no retinoid-related NLP infections have been reported. Notably, retinoids have been shown to inhibit replication of various viruses (human herpesvirus 8, human immunodeficiency virus type 1, herpes-simplex virus type 1, measles virus, mumps virus, polyoma virus, hepatitis B virus, and hepatitis C virus) in vitro; however, their effect on SARS-CoV-2 is unknown.

Azathioprine, cyclosporine, and mycophenolate mofetil are third-line NLP treatments.[3] They are known to cause immunosuppression. However, their effect on susceptibility to and increased severity of COVID-19 infection is largely unknown. Treating physicians may consider tapering to the lowest effective dose during the pandemic. For patients positive/symptomatic for COVID-19, these immunosuppressants should be discontinued. Of note, cyclosporine has been shown to have anticoronavirus activity.[18]

There is a case report of NLP treatment with chloroquine phosphate, with improvement noted after 10 weeks, and complete remission (20 nails) after 30 weeks.[15] There were no adverse events. Chloroquine and hydroxychloroquine have been shown to inhibit SARS-CoV-2 in vitro, with the latter showing higher efficacy and less toxicity.[19] However, their efficacy for COVID-19 treatment remains an area of active investigation. Completed trials have shown mixed results and varying degrees of bias with poor study design.[20]

NLP is a true nail emergency and may lead to permanent debilitating nail loss. Thus, treatment must be aggressive and individualized. Careful pharmacologic selection is mandatory during this pandemic, and collection of specific COVID-19 data is warranted to establish evidence-based guidelines.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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