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Challenges of teledermatology: lessons learned during COVID-19 pandemic

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Abstract

The COVID-19 pandemic required a transition to telemedicine to limit viral spread. The practice of dermatology seems particularly well-suited for telemedicine. However, this pandemic transformed teledermatology into the predominant means of delivering care. Providers are limited in their ability to promptly and accurately manage disease without access to in-person tools. This monumental switch to teledermatology may disadvantage certain patient populations, including those with limited technological literacy (such as the elderly) or access to the internet. Dermatologists must acknowledge these limitations and recognize the consequences of severely limited in-person visits over a prolonged period of time.

Keywords: teledermatology, COVID-19

Introduction

Dermatologists are well-equipped for telemedicine given our high reliance on visual diagnosis. Patients report high satisfaction when used for triaging dermatologic concerns or following-up on stable conditions [1]. Teledermatology also has the potential to expand care to underserved communities, especially to rural areas [2]. However, teledermatology was not meant to fully replace in-person visits as it has been tasked to do during the COVID-19 pandemic. We must acknowledge the potential long-term impact of this change and implement strategies to care for disadvantaged

populations. Herein, we describe specific challenges and benefits of teledermatology during the COVID-19 pandemic.

Discussion

Skin conditions that are well-suited for telemedicine include acne, atopic dermatitis, seborrheic dermatitis, xerosis, onychomycosis, and tinea pedis, among others [3,4]. Patients with chronic inflammatory dermatoses have improved adherence and outcomes when continually supported through electronic means [5]. Teledermatology has been especially crucial during the COVID-19 pandemic. Despite clinic closure, patients have access to expert dermatologic opinion and can receive timely medication refills. However, long-term implementation of teledermatology as a primary mode of care delivery may have certain detrimental effects. Some studies have suggested that teledermatology is inferior to in-person diagnostic accuracy [1,6]. Providers must evaluate pigmented lesions based on still images which is inferior to dermoscopic diagnosis [6]. In the normal teledermatology workflow, patients are often triaged to in-person dermatology visits for a biopsy after their consultation [4], but COVID-19-related practice has deferred this crucial second step for many patients. Beyond biopsies, other in-office tools such as KOH preparations, mineral oil scrapings, trichoscopy, and Wood lamp cannot be used remotely to help diagnose various infections, hair conditions, and pigment disorders. From a treatment perspective, patients have decreased access to in-

office procedures including phototherapy, photodynamic therapy, intralesional steroid injections, cryotherapy, laser hair removal, and wound dressing changes. Although the overall risk to benefit consideration during a viral pandemic rightly favors limiting in-person visits, waiting for definitive dermatologic care can increase patient morbidity and anxiety, such as in the case of skin cancer surgeries.

There are also patient-related barriers to tele dermatology. First, virtual visits require a degree of technical literacy and a device with a camera and internet access. As a result, older patients and those with limited resources are at a disadvantage [7]. Second, dermatologists often need to perform examinations of sensitive areas such as the breasts, genitals, or buttocks. Patients are understandably reluctant to expose these areas in photographs or video visits. These constraints can delay care for diseases affecting private areas, including malignancies or sexually transmitted infections that would typically warrant prompt intervention. The mouth and scalp are also inherently difficult to examine virtually, especially without adequate lighting. Third, patients may not be able to provide their weight for accurate medication dosing or blood pressure for medication side effect monitoring (e.g. cyclosporine). Lastly, patients may have a distrust of telemedicine or perceive it to be “impersonal”

compared with face-to-face encounters [8], which could hinder the patient-physician relationship.

Dermatology clinics must enact change to address the challenges inherent to remote care. Increased technical support can help patients navigate virtual platforms and facilitate communication with their providers. If feasible, regular check-ins between ancillary staff and patients can improve compliance and monitoring. Patient education should be a priority during virtual visits. For example, dermatologists can create action plans for patients with chronic inflammatory diseases and empower them to manage mild flares on their own.

Conclusion

The widespread adoption of tele dermatology during the COVID-19 pandemic has been vital for the overall health and safety of our patients. However, the prolonged cessation of in-person care has likely resulted in some diagnostic uncertainties and therapeutic delays that we must thoughtfully address as clinics re-open. During times of a widespread pandemic, we must further improve access for vulnerable populations and empower patients to optimize remote health management.

Potential conflicts of interest

The authors declare no conflicts of interest.

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