

Abstract

Tele dermatology in India During the Peri-COVID-19 Outbreak Period: Advantages, Shortcomings, and Challenges

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Abstract

Background: Telemedicine is defined as the use of electronic information and communication technologies for health care professionals to provide care to patients. Although available since the pre-COVID-19 era, a huge surge in tele dermatology consultations occurred during the COVID-19 outbreak. As access to health care became limited and difficult due to repeated lockdowns, tele dermatology helped us provide health care to our patients. Moreover, as dermatology is a visual field, it was even more suitable for teleconsultations.

Objective: The objectives of this study were to investigate the advantages, shortcomings, and challenges of tele dermatology in India during the peri-COVID-19 outbreak period.

Methods: This was a single-center, retrospective, observational study conducted at a tertiary care hospital in India. Tele dermatology consultation data from April 1, 2020, till September 2021 (18 months) were included. All modes, including real-time (RT) video, asynchronous store and forward (SAF), and hybrid, were used to conduct tele dermatology consultations. Statistical analyses were performed using SPSS software (IBM Corp).

Results: During these 18 months, a total of 4280 patients took tele dermatology consultations at our center. The mean age of the patients was 34.19 years, with most of them (36.4%) in the age group of 31-40 years. The patient population comprised a mix of urban (55%) and rural (45%) individuals. Overall, 70% of consultations were conducted in the SAF mode; hybrid mode, 16%; and RT video consultations, 14%. Diagnosis was established in 89.1% of the cases, and the most common diagnosis was superficial fungal infection (28%), followed by eczema (16%) and acne (8.6%). Hospital visits were required in the remaining 10.9% of cases for the following reasons: lack of clear pictures and technical errors (5.57%). Additional diagnostic tests were required in 1.3% of cases, physical examination in 1.05% of cases, and 0.39% of patients had life-threatening conditions requiring hospitalization. The advantages of tele dermatology include decreased need for hospital visits among 89.1% of patients, which played a very important role in decreasing overcrowding. Also, this helped us provide expert health care to the rural population of India. Owing to shortcomings including the lack of good-quality pictures (4.2%; more so in SAF teleconsultations) and technical errors (1.37%), tele dermatology cannot be used to manage life-threatening conditions (0.39%), and, in particular, RT video consultations are more time-consuming (14%). Challenges faced by dermatologists during tele dermatology consultations were mainly operational, such as the lack of good internet access leading to interrupted consultations (1.37%), poor quality of pictures (4.2%), and difficulty in extracting history in cases of SAF consultations.

Conclusions: Tele dermatology serves as a triage platform and helps reduce hospital visits. It helps to cater to the rural population, which otherwise has limited access to health care. Some technical challenges are the dependence of tele dermatology on pictures and information sent by the patient for establishing the diagnosis. Also, sometimes patients faced difficulty in conveying problems clearly to the doctors. Because of the ease and advantages, several dermatologists have continued to use tele dermatology along with the physical consultations in the post-COVID-19 era. With a few advancements, tele dermatology will certainly remain a successful and useful model for consultations, more so for catering to the population with the lack of access to specialist services.

Conflicts of Interest: None declared.

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KEYWORDS

tele dermatology; COVID-19; India; health care; outbreak

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