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Roadblock in application of telemedicine for diabetes management in India during COVID19 pandemic



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To The Editor,

During the current scenario of COVID-19 pandemic, lockdown and social distancing are believed to be effective strategies to 'flatten the epidemiological curve' of the disease. Patients with chronic diseases in unsupervised situation due to lockdown are not able to physically reach their healthcare providers. The resultant loss of control of diabetes and blood pressure may increase occurrence of COVID-19 as well as clearly increase severity of the disease [1]. In this context it is important to note that nationwide lockdown is likely to increase the burden of uncontrolled diabetes and its future complications as has been suggested by simulation model results for patients with diabetes in India [2].

Telemedicine provides us with useful opportunity to connect with patients with diabetes and other endocrine diseases. To help physicians who are engaged in diabetes care we have recently published practical telemedicine guidelines for physicians [3]. Although telemedicine has been used previously to manage diabetes, its use has majorly increased, and many telemedicine service providers are now available. The physician should choose the provider which has best safety features for data.

We have been using telemedicine (video consultations) in our tertiary diabetes care hospital for last 20 days and have consulted more than 250 patients till now. Most of these consults have been for follow-up patients. Despite inability to do comprehensive clinical assessment including physical examination, majority of our patients have benefitted from advice on video consultation platforms. Encouraging management points include dose adjustment of anti-hyperglycaemic agents, demonstration of correct way to inject insulin, diagnosis of skin lesions (e.g. chicken pox), foot infections, and gangrene. An interesting important point is that many close relatives are available at this time at home, and these can join video consult, thus increasing important disease-related inputs as well.

At the same time, we have noted following roadblocks while engaging with the patients.

1. **Poor internet connectivity:** Due to massive rise in usage of internet there has been decreased in bandwidth which has led to poor connectivity and poor audio/video quality. Frequently, patients miss important points in the conversation.
2. **No proper hardware:** Many patients in rural areas did not have computer or smart phones. In such cases connection by telephone call is required.
3. **Digitally naive patients:** Few of our patients were not computer savvy and did not even have email address. Many elderly patients find it difficult to navigate through the digital platforms. These patients require help from another person (relative) who is well versed in digital platform.
4. **Improper handling of smart phones:** Many patients are not able to focus the camera (e.g. sometimes only a portion of head is visible) and require many prompting from us.
5. **Poor understanding/poor hearing ability:** Elderly have difficulty in understanding communications. Many elderly patients have some degree of deafness and are unable to hear instructions properly. Such patients tend to call on telephone several times to seek clarification.
6. **Background disturbances (noises) at from patient's place:** This often occurs due to movements, music and noise by relatives and children in the house.
7. **Changing to more easily accessible medium:** Patients find using web based teleconsult confusing and they tend prefer telephone-based video chat apps (WhatsApp, Facetime).

Teleconsultation is likely to remain popular with diabetologist/endocrinologist for long time now. It is likely that doctors and patients both will increase efficiency and expertise in using this facility with repeated use and continue to provide useful treatment guidance.

Declaration of competing interest

The authors declare 'no conflict of interest' regarding this particular article.

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