

YOUNG INVESTIGATORS:

The “Twilight Zone” world of the COVID-19 pandemic: The place, role and future of telehealth in hypertensive patients

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The COVID-19 pandemic compels the use of the vast amounts of human, economic, and material resources to treat and prevent the infection and the global healthcare system has tended to adopt a “tunnel vision” for only those afflicted with COVID-19 infection. The worldwide quarantine and lockdown, as well as rapidly increasing number of COVID-19 victims challenge current healthcare systems. As a result, the COVID-19 pandemic highlights the value of digital health technologies.

The decision to dive into telemedicine looks pretty natural. The massive transition into telemedicine is the most effective tool to comply with social distancing and self-isolation requirements¹. In many countries, restrictions related to the implementation of telehealth services are being loosened (e.g. for initial inpatient visits) in order to increase the opportunities to screen suspected patients and to diminish personal contacts and the risk of further infection dissemination¹. Tele-visits are temporarily allowed via Skype, Apple FaceTime or Google Hangouts, despite safety/privacy concerns².

The majority of recent reports focus on tele-services for COVID-19 afflicted patients, while only a few consider other medical issues^{1,2}. At the same time, chronic non-communicable diseases (notably hypertension) are frequent comorbidities in COVID-19 and are associated with the increased risks of adverse outcomes³. During COVID-19 pandemic, when ambulatory practices are temporarily closing or limiting their workload, many patients with chronic diseases are left without access to healthcare. In the setting of lockdown, cut-off from other family members, facing an abrupt decrease in social activities and social support, and increased fear and anxiety disorders, the risk of destabilization of hypertension and cardiovascular diseases has increased. On the other hand, the absence of daily routine and physical activity can also affect blood pressure levels requiring medication adjustment.

Moreover, the recent debate on the use of angiotensin-converting enzyme inhibitors (ACEIs) or angiotensin-receptor blockers (ARBs) during pandemics cast doubts among patients and medical professionals⁴. The majority of professional societies recommend continuing ACEIs/ARBs in patients with COVID-19, while the evidence is obtained⁴.

Randomized clinical trials of ACEIs/ARBs in COVID-19 patients are being planned (NCT04311177, NCT04312009). Nevertheless, the patients require professional guidance right now, and in the majority of cases the help can be easily provided by teleconsultation. This, in turn, could prevent deleterious consequences of self-administered drug withdrawal. In this healthcare crisis with a shortage of specialists, facilities and available funds, telehealth offers a cost-effective and useful tool for managing hypertension⁵. Physicians can provide direct supervision remotely through audio/video/text communication thus reducing exposure risks both for the beneficiary and for the healthcare provider.

Healthcare authorities should promote the adjustment of regulation for telemedicine services, including short consultations, personalized answers to certain questions etc., as well as urgent education of medical professionals to use the telehealth facilities. Certainly not all patients can be treated remotely (e.g. interventional procedures).

However, in the face of the pandemic, telehealth is not merely a luxury, but a viable approach for protecting both patients and doctors. With a high-speed Internet connection, integrated Electronic Health Records and Decision Support Systems may also facilitate remote consultations and data collection. The latter is essential for understanding outcomes. The analysis of 2020 data will show whether a sudden increase in telemedicine is beneficial or not, and the intermediate analyses from international datasets might help to optimize the telehealth services to achieve more benefits.

In summary, the COVID-19 pandemic might serve as a powerful incentive for the transformation of healthcare into a more interactive, forceful and flexible system without loss in privacy and security⁶. In the next years we are likely to witness a huge tidal wave of immense data collected remotely (i.e. Apple Heart Studies⁷) offering new scientific and clinical challenges.

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