Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the Editor

The diagnosis of epilepsy in the COVID-19 era: Dealing with revolution in clinical practice

To the Editor

We would like to comment on the article entitled "What should we ask patients with epilepsy on telemedicine during the COVID-19 crisis? A checklist for clinicians" by Naoto Kuroda [1]. This article summarizes the checkpoints of telemedicine for patients with epilepsy during the coronavirus disease 2019 (COVID-19) crisis. Epileptologists are required to manage their outpatients using telemedicine because of the COVID-19 pandemic.

Indeed, the COVID-19 pandemic [2] is deeply impacting on the management of acute and chronic neurological conditions by forcing neurology practices worldwide to dramatically reshape their delivery of care [3].

The impact of COVID-19 on neurological services and patients is dramatic. This global public health emergency has created novel and significant challenges to several neurological diseases including epilepsy care. Telemedicine can facilitate remote clinical consultations for new and follow-up people with epilepsy (PwE) while reducing the risk of infection to both PwE and healthcare staff [3,4]. Nevertheless, people with new onset of seizures will need investigation pathways rationalized. As an example of a potential working model and services reorganization, we recently managed a case of Pallister–Killian syndrome, a rare, sporadic, multisystem developmental disorder caused by mosaic tetrasomy 12p, mainly characterized by craniofacial dysmorphic features, severe intellectual disability, and epilepsy [5].

During the so-called phase 1 of COVID-19 pandemic in Italy, we have been contacted by the parents of a 24-year-old boy who, since a couple of weeks, every night in the first part of sleep, presents several paroxysmal, brief, and stereotyped episodes in which he suddenly wakes up, sits on the bed, appears agitated, and not in contact with the environment. After few seconds, the episode ends, and the boy falls asleep again. A home video recorded on a mobile phone shows images compatible with a confused awakening behavior.

By considering his "fragile" general and neurological clinical condition to avoid the risk of exposure to COVID-19 infection and to optimize the diagnostic workup, we performed an ambulatory electroencephalography (EEG) [6] that allowed us to reach a correct differential diagnosis between parasomnias and epilepsy by recording three of the usual anamnestic episodes that turned out to be epileptic seizures (Fig. 1).

This is an exemplificative case of how, in the course of a pandemic, people with suspected epilepsy could be properly diagnosed at home with no hospitalization, thus reducing the risk of contagion, protecting both patients and healthcare professionals [3,4]. In the field of epilepsy care, alternative means of care are urgently needed, and efforts must be made to implement more home-video techniques, ambulatory-EEG, and televideo-EEG services in order to implement a method of performing safely tests that in prepandemic times would have been performed in hospital.

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Declaration of competing interest

None.

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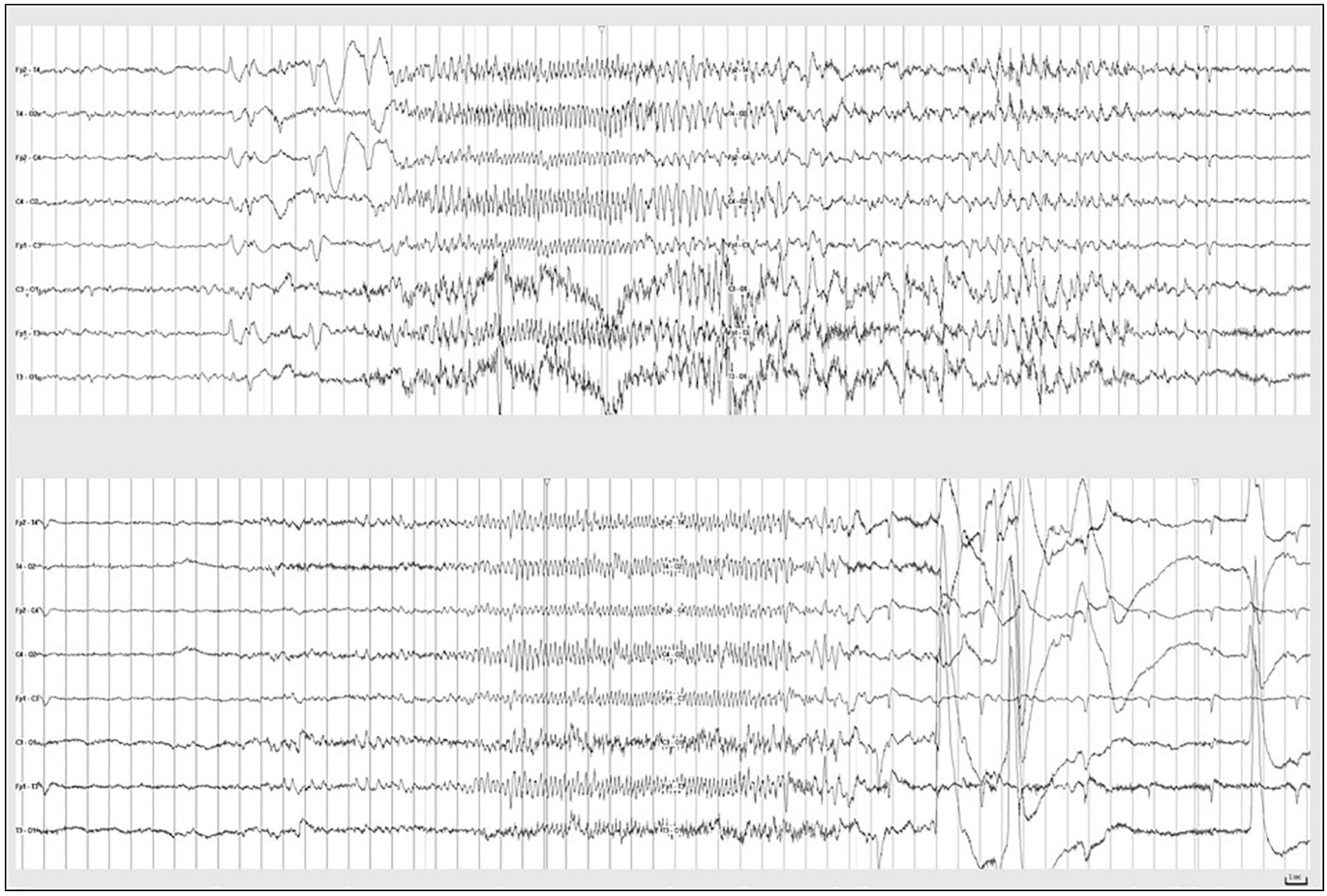

Fig. 1. Two seizures captured on 8-channel ambulatory-EEG recording. Electroencephalography shows rhythmical recruiting theta-alpha discharges over bilateral hemispheres.