



NEUROLOGICAL COMPLICATIONS AND NEUROPSYCHIATRIC MANIFESTATIONS IN COVID-19 INFECTION –CHALLENGES FOR SPECIALISTS AND GENERAL PRACTITIONERS

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Abstract

Background. Since 2019 Sars-Cov-2 has become pandemic, spreading in over 200 countries.

The extrapulmonary manifestations and complications of infection with the virtue of SARS-Cov2 are: neurological, cardiological, gastrointestinal, ophthalmological, dermatological, re-nal.

The typical neurological manifestations for the initial/ mild phases, respectively the advanced phases are summarized in fig 1.

Aim of the study. The paper summarises the important neurological manifestations and complications of COVID-19 in previously healthy persons and discusses the relevance of these findings from the per-spective of neurological and rehabilitation multi-/interdisciplinary teams.

Methods. Internet literature search (Lit Covid and PubMed) using the following keywords (Covid-19, Coronavirus, pandemic, neurological manifestations., complications, neurology). Most papers /reports were from China, the USA, Italy France, UK.

Type of studies: initially were published mainly isolated case reports then case series, or retro-spective request. Later on: narrative reviews, systematic reviews, prospective studies, and meta-analysis. (fig 2). In 2019-2021 were found 2,997 results, 357 review studies, and 98 system-atic reviews. Neurological manifestations/ complications associated with SARS -Cov-2 infections are dichotomically divided into central nervous systems determinations (dizziness, headache, acute stroke /hemorrhagic or ischemic, impaired consciousness, acute hemorrhagic necrotizing encephalopathy, encephalopathy, encephalitis, epileptic seizures, ataxia transverse myelitis). Peripheral nervous systems viral complications are represented by hypo-/ anosmia, hypo-/ ageu-sia, neuralgia (neuropathic pain), Guillain Barre syndrome, rhabdomyolysis (skeletal muscle injuries, myalgias). Some of the pathological issues were frequently encountered during the initial/ mild clinical form of infection, others were typical for the advanced phases of the disease,

Discussion. Neurological involvement in Covid-19 is not uncommon and can induce serious complications, even with lethal outcomes. Neurological determinations can be the debut form of the viral infection, preceding the pulmo-nary symptoms, or might be the only symptom in Covid ill patients.

Complications are mainly associated with the most severe clinical form of the disease. The importance of the subject: to raise awareness for professional staff in Neuro-rehabilitation clinics on the possible severe/ lethal complications of the viral infection, in the context of a possible future 4th wave of pandemic rebound, with the new different (alpha-beta, ... ?) viral mutations, possibly more aggressively and contagious, with possible different clinical manifes-tations and unknown potential to overcome the natural immune walls, created by the vaccines. Each general practitioner and each professional in the rehabilitation staff must actively con-tribute to raise awareness and educate the general public with correct and reliable information, and contribute to the acceleration rate of vaccination of the general population.

Conclusions. Neurological involvement is precocious, common, and might be a severe manifestation of SARS-Cov-2 (and variants) infection. Early identifications of neurological and neuropsychic complications represent a challenge for specialists and general practitioners, and it contributes to avoiding important disabling sequels.

Keywords: Covid-19, Coronavirus, pandemic, neurological manifestations, complications, general practi-tioner