Introduction

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In December 2019, an outbreak caused by a novel coronavirus (2019-nCoV), now named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), occurred in China and has rapidly spread all over the world causing a pandemic. The disease caused by SARS-CoV-2 was named COVID-19. In Europe, the first case was reported in the Lombardy region. Although soon after all Italian regions reported patients with COVID-19, the highest number of cases was in Eastern Lombardy, specifically in the area of Bergamo with 11,313 confirmed COVID-19 patients up to April 30th 2020. For this reason, we decide to explore the known CNS manifestation of this virus, showing the “typical” MRI aspect. In this Atlas we will show real cases we faced in the first outbreak between March and May 2020. COVID-19 may affect CNS presenting with several patterns, nowadays we are trying to define what is typical and what it is not. Therefore, we have separated chapters according to different types of presentation (vascular lesions, inflammatory lesions and so on) and for this reason some topics will be treated extensively in the first chapter and more shortly in each specific other chapter.

1.1 How to Read the Atlas

On the introduction of each chapter you will find some general information on each topic, followed by clinical picture and images sorted to show the lesions in different shapes, sizes, and locations. It should be noted that our intent was not to elaborate on all the details on each case. There may be several different findings but we have tried to demonstrate the most important ones according to the topic. When possible and disposable the entire clinical history of the patient was given in the legend, if not possible due to the fast progression of the disease in that phase of the pandemic, only the specific neurological presentation according to imaging findings were given. We present cases as we faced them in the acute phase of the pandemic.

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