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Letter to the Editor

Aged Patients With Mental Disorders in the COVID-19 Era: The Experience of Northern Italy

In December 2019, the first cases of Corona Virus Disease 2019 (COVID-19) outbreak related to acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection were reported in the Chinese city of Wuhan. Currently, more than 2 millions (2.160.207) of cases and 146.088 deaths have been worldwide confirmed. European countries, particularly Spain (188.068 cases) and Italy (172.434 cases) are continuously experiencing a tragic growth, although lockdown restrictions have been imposed by several weeks.[1] In Italy, the first cases have been identified at the end of February 2020 in the northern territories, especially in the Lombardy Region (64.135 total cases, of which 23.8% in Milan, 18% in Brescia, 16.5% in Bergamo, 8.3% in Cremona, 6.2% in Monza, 5.4% in Pavia, 4.3% in Mantova, 4.2% in Lodi, 3.6% in Como, 3.2% in Varese, 3.1% in Lecco and 1.3% in Sondrio, with the remaining cases that are updating).[2] While social activities were prohibited due to restrictions and quarantine limited all the individual movements, the local hospitals were forced to implement their emergency protocols in order to manage thousands of critically ill Covid-19 patients.

Elderly subjects, especially those with mental disorders, need to be considered more vulnerable than other individuals to the tragic effects of COVID-19 outbreak for the following reasons. First, the case-fatality rate and the proportion of deaths in aged individuals aged 65 or above is higher than other populations.[3] Moreover, elderly subjects were more likely to manifest medical comorbidities such as hypertension, diabetes, cardiovascular diseases, chronic kidney disease, chronic obstructive pulmonary disease and cancer than younger subjects. A specific risk factor for poorer outcome in the elderly is the higher occurrence of acute respiratory distress syndrome which is an important predictor of fatal outcomes.[4] Additionally, individuals aged 65 or above may be cognitively impaired and more susceptible to the effects of stress and major depression than younger individuals.[5] The rapid transmission of COVID-19 infection as well as the higher case-fatality might exacerbate existing psychiatric disorders, and enhance the risk of new psychopathological episodes. In addition, elderly subjects usually suffer from lower social support and require long-term care due to existing disabilities; this may significantly enhance loneliness, despair and hopelessness which are independent predictors of suicide. Furthermore, older patients may be not adequately treated particularly in territories where the activities of mental health services are drastically restricted due to quarantine, and only a limited access to Internet services and smart phones is allowed.[6] Last but not least, prejudices and discrimination towards marginalized individuals such as aged subjects with mental disorders may be generally reinforced in situations of social crisis, fear, frustration, and uncertainty. Stigma is a relevant predictor of negative outcome and represents an important barrier to care, particularly when it coexists with social isolation.

According to our experience of the Hospital *Papa Giovanni XXIII* in the city of Bergamo, medical departments, after appropriate training of all healthcare workers, were rapidly converted into specific units aimed at treating patients with COVID-19 infection. In order to manage infected patients with acute psychiatric conditions, the regional authorities established that all psychiatric hospitals dedicated specific beds or, alternatively, guaranteed the continuous support of psychiatric staff

in medical settings. Specifically, we directly observed a rapidly growing request of psychiatric interventions in aged patients with COVID-19 infection due to the emergence of severe delirium (mainly hyperkinetic) which was reported in approximately 30%−50% of cases increasing with age, psychomotor agitation, anxiety, and depressive symptoms. When compared with younger subjects, we found that subjects aged 65 or above with prolonged hospitalization in our hospital are more vulnerable to: 1) environmental factors (e.g., social isolation and distance from family members, stay in intensive/subintensive units, communication difficulties due to therapeutic devices); 2) individual factors (e.g., COVID-19 possible neurotropic properties, impairments in insight and cognitive dysfunctions, comorbid medical conditions, and use of multiple medications).

In order to attenuate the psychological impact and traumatic consequences of COVID-19 outbreak and facilitate coping abilities towards emotional distress, group interventions have been regularly promoted for all healthcare workers. Our special thanks needs to be dedicated to everyone who assisted with competence and supports with devotion patients and their relatives in the COVID-19 era. We firmly believe that the management of older adults with psychiatric disorders really represents a major challenge in this difficult period. Unfortunately, inadequate attention has been provided for this vulnerable population while targeted interventions aimed to remove barriers to care need to be carefully planned.

AUTHOR CONTRIBUTIONS

Gianluca Serafini, Emi Bondi, Clara Locatelli, Mario Amore have all contributed to the letter equally.

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References

1. https://covid19.who.int/. Accessed April 16, 2020.
2. https://lab24.ilsole24ore.com/coronavirus/#box_14, updated on April 16, 2020.
3. Guan WJ, Ni ZY, Hu Y, et al: Clinical characteristics of coronavirus disease 2019 in China. N Engl J Med 2020 (in press)
4. Wang L, He W, Yu X, et al: Coronavirus Disease 2019 in elderly patients: characteristics and prognostic factors based on 4-week follow-up. J Infect 2020 (in press)
5. Lloyd-Sherlock PG, Kalache A, McKee M, et al: WHO must prioritise the needs of older people in its response to the covid-19 pandemic. BMJ 2020; 368:m1164
6. Yang Y, Li W, Zhang Q, et al: Mental health services for older adults in China during the COVID-19 outbreak. Lancet Psychiatry 2020; 7(4):e19