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R. BADAGLIACCA ET AL.

The paradox of pulmonary arterial hypertension in Italy in the COVID-19 era: is risk of disease progression around the corner?

Roberto Badagliacca[1], Silvia Papa[1], Michele D'Alto[2], Stefano Ghio[3], Piergiuseppe Agostoni[4,5], Pietro Ameri[6], Paola Argiento[2], Natale Daniele Brunetti[6], Vito Casamassima[7], Gavino Casu[8,9], Nadia Cedrone[10], Marco Confalonieri[11], Marco Corda[12], Michele Correale[13], Carlo D'Agostino[14], Lucrezia De Michele[14], Giulia Famoso[15], Giuseppe Galgano[7], Alessandra Greco[3], Carlo Mario Lombardi[16], Giovanna Manzi[1], Rosalinda Madonna[17], Valentina Mercurio[18], Massimiliano Mulè[19], Giuseppe Paciocco[20], Antonella Romaniello[21], Emanuele Romeo[2], Laura Scelsi[3], Walter Serra[22], Davide Stolfo[23], Matteo Toma[24], Marco Vatrano[25], Patrizio Vitulo[26] and Carmine Dario Vizza[1], The italian Pulmonary Hypertension NETwork (iPHNET)

[1]Dept of Cardiovascular and Respiratory Sciences, Sapienza University of Rome, Rome, Italy. [2]Dept of Cardiology, Monaldi Hospital – University "L. Vanvitelli", Naples, Italy. [3]Fondazione IRCCS Policlinico S Matteo, Pavia, Italy. [4]Dept of Clinical and Community Sciences, University of Milan, Milan, Italy. [5]Centro Cardiologico Monzino, IRCCS, Milan, Italy. [6]Dept of Medical and Surgical Sciences, University of Foggia, Foggia, Italy. [7]Dept of Cardiology, "F.Miulli" Hospital, Acquaviva delle Fonti, Bari, Italy. [8]ATS Sardegna-ASSL Nuoro, San Francesco Hospital Nuoro, Nuoro, Italy. [9]University of Sassari, Sassari, Italy. [10]Unità di Medicina Interna, Ospedale S. Pertini, Rome, Italy. [11]Pulmonology Unit, Heart-Thorax-Vessels Dept, University Hospital of Cattinara, Trieste, Italy. [12]Cardiology Unit, Azienda Ospedaliera "G. Brotzu" San Michele, Cagliari, Italy. [13]Cardiology Dept, Ospedali Riuniti University Hospital, Foggia, Italy. [14]Cardiology Dept, University Hospital Policlinico Consorziale Bari, Bari, Italy. [15]Dept of Cardiac Thoracic Vascular Sciences and Public Health Padua, Padua, Italy. [16]Cardiologia, Università degli Studi di Brescia, Brescia, Italy. [17]Cardiology Unit, Dept of Surgical, Medical and Molecular Pathology and of Critical Sciences, University of Pisa – UNIPI, Pisa, Italy. [18]Dept of Translational Medical Sciences, Federico II University of Naples, Naples, Italy. [19]Ferrarotto Hospital, Catania, Italy. [20]Cardio-Thoraco-Vascolar Dept, Clinica Pneumologica, Azienda Ospedaliera San Gerardo, Monza, Italy. [21]Cardiology Unit, S. Andrea Hospital, Rome, Italy. [22]Cardiology Unit, University Hospital of Parma, Parma, Italy. [23]Cardiovascular Dept, Azienda Sanitaria Universitaria Giuliano Isontina, Trieste, Italy. [24]Cardiovascular Disease Unit, IRCCS Ospedale Policlinico San Martino and Dept of Internal Medicine, Univeristy of Genova, Genova, Italy. [25]Azienda Ospedaliera Pugliese – Ciaccio di Catanzaro, Catanzaro, Italy. [26]Pulmonology Unit, IRCCS – Istituto Mediterraneo Trapianti e Terapie ad Alta Specializzazione (ISMETT), Palermo, Italy.

Corresponding author: Carmine Dario Vizza (dario.vizzaa@uniroma1.it)

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COVID-19 showed low incidence among PAH patients, but high mortality rates. A high level of attention is needed to avoid the potential risk of disease progression in the near future. https://bit.ly/3s1lEYM

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Abstract

Objective The coronavirus disease 2019 (COVID-19) outbreak has led to significant restrictions on routine medical care. We conducted a multicentre nationwide survey of patients with pulmonary arterial hypertension (PAH) to determine the consequences of governance measures on PAH management and risk of poor outcome in patients with COVID-19.

Materials and methods The present study, which included 25 Italian centres, considered demographic data, the number of in-person visits, 6-min walk and echocardiographic test results, brain natriuretic peptide/N-terminal pro-brain natriuretic peptide test results, World Health Organization functional class assessment, presence of elective and non-elective hospitalisation, need for treatment escalation/initiation, newly diagnosed PAH, incidence of COVID-19 and mortality rates. Data were collected, double-checked and tracked by institutional records between March 1 and May 1, 2020, to coincide with the first peak of COVID-19 and compared with the same time period in 2019.

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Results Among 1922 PAH patients, the incidences of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and COVID-19 were 1.0% and 0.46%, respectively, with the latter comparable to that in the overall Italian population (0.34%) but associated with 100% mortality. Less systematic activities were converted into more effective remote interfacing between clinicians and PAH patients, resulting in lower rates of hospitalisation (1.2% *versus* 1.9%) and related death (0.3% *versus* 0.5%) compared with 2019 ($p<0.001$). A high level of attention is needed to avoid the potential risk of disease progression related to less aggressive escalation of treatment and the reduction in new PAH diagnoses compared with 2019.

Conclusion A cohesive partnership between healthcare providers and regional public health officials is needed to prioritise PAH patients for remote monitoring by dedicated tools.