COVID-19 IN YOUNG AND MIDDLE-AGED ADULTS. PREDICTORS OF POOR OUTCOME AND CLINICAL DIFFERENCES.

eva tabernero[1], Luis Alberto Ruiz[1], Pedro Pablo España[2], Raul Mendez[3], Leyre Serrano[1], Borja Santos[4], Ane Uranga[2], Paula Gonzalez[3], Patricia Garcia[2], Antoni Torres[5], Rosa Menendez[3], and Rafael Zalacain[1]

[1]Hospital Universitario Cruces
[2]Hospital Galdakao-Usansolo
[3]La Fe University and Polytechnic Hospital
[4]Biocruces Bizkaia Health Research Institute
[5]Hospital Clinic Barcelona

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Abstract

ABSTRACT Young and middle-aged adults are the largest group of patients infected with SARS-CoV-2 and some of them develop severe disease. Objective: To investigate clinical manifestations in adults aged 18-65 years hospitalized for COVID-19 and identify predictors of poor outcome. Secondary objectives: to explore potential differences compared to the disease in elderly patients and the suitability of the commonly used community-acquired pneumonia prognostic scales in younger populations. Methods: Multicenter prospective registry of consecutive patients hospitalized for COVID-19 pneumonia aged 18-65 years between March and May 2020. We considered a composite outcome of "poor outcome" including intensive care unit admission and/or use of noninvasive ventilation, continuous positive airway pressure or high flow nasal cannula oxygen therapies and/or death. Results: We identified 513 patients <65 years of age, from a cohort of 993 patients. 102 had poor outcomes (19.8%) and 3.9% died. 78% and 55% of patients with poor outcomes were classified as low risk based on CURB and PSI scores respectively. A multivariate Cox regression model identified six independent factors associated with poor outcome: heart disease, chest pain, anosmia, low oxygen saturation, high LDH and lymphocyte count <800/mL. Conclusions: COVID-19 in younger patients carries significant morbidity and differs in some respects from this disease the elderly. Baseline heart disease is a relevant risk factor, while anosmia and pleuritic pain are more common and protective. Hypoxemia, LDH and lymphocyte count are predictors of poor outcome. We consider that CURB and PSI scores are not suitable criteria for deciding admission in this population.

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