Of interest, the prevalence of Covid-19 did not correlate with presence/absence of different comorbidities, mainly diabetes, cardio-vascular and/or renal disorders, as well as of ongoing treatments with biological DMARDs; while patients treated with conventional DMARDs showed a significantly lower prevalence of Covid-19 compared to those without. Covid-19 was more frequently observed in the patients’ populations from northern and central compared to southern Italian macro area with lower diffusion of pandemic. Clinical manifestations of Covid-19, observed in 74 patients, were generally mild or moderate; 4/9 individuals requiring hospital admission died for severe pneumonia.

Conclusion: The prevalence of Covid-19 observed in ASD patients during the first wave of pandemic was significantly higher than that observed in Italian general population; moreover, the actual prevalence of Covid-19 might be underestimated due to the high number of mild variants as well as the possible clinical overlapping between these two conditions. Patients with ASD should be invariably regarded as ‘frail patients’ during the pandemic course, considering the risk of worse outcome in the acute phase of Covid-19, as well as the potential long-term effects of viral infection.

The statistically significant association of Covid-19 with connective tissue diseases/systemic vasculitis, as well as with pre-existing interstitial lung involvement, suggests the presence of distinct clinico-pathological ASD subsets, characterized by markedly different patients’ vulnerability to SARS-CoV-2 infection.

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POS1247

CLINICAL FEATURES AND OUTCOMES OF COVID-19 IN PATIENTS WITH IGG4-RELATED DISEASE. A COLLABORATIVE EUROPEAN MULTI-CENTRE STUDY

G. A. Ramirez1,2, M. Lanzillotta1,2, M. Ebbo3,4, A. Fernandez-Codina5,6,7, G. Mancuso2,5, R. Martinez-Valle1,2, O. Orozco-Galvez1,2, N. Schleinitz1,2, L. Dagnia1,2, E. L. Culver1,2, E. Della Torre1,2, JRCSC Ospedale San Raffaele, Unit of Immunology, Rheumatology, Allergy and Rare Diseases, Milan, Italy; 1–3Saint Joseph’s Health Care London, Rheumatology, London, Canada; 4–5Saint Joseph’s Health Care London, Rheumatology, London, Canada; 6Windsor Regional Hospital, General Internal Medicine, Windsor, Canada; 7G. Cuomo1, M. Atteno2, C. Nalciero3, L. E. Adinolfi4, C. Romano5, 6University of Campania Studies “Luigi Vanvitelli”, Department of Medicine, Avellino, Italy; 7Azienda Ospedaliera di Rieile Nozionale San Giuseppe Moscati, Internal Medicine, Avellino, Italy; 8Hospital Clinic i Provincial, Emergency Department, Barcelona, Spain; 9–11University of Western Ontario, Rheumatology, London, Canada; 12Hospital Clinique et Universitaire, Urgences Medico-Chirurgicales, Emergencias, Department of Medicine, Paris, France; 13Aix-Marseille University, Internal Medicine, Marseille, France; 14Marseille Regional Hospital, General Internal Medicine, Marseille, France; 15Windsor Regional Hospital, General Internal Medicine, Windsor, Canada; 16Saint Joseph’s Health Care London, Rheumatology, London, Canada; 17University of Oxford, Translational Gastroenterology Unit, Oxford, United Kingdom

Background: Coronavirus disease 2019 (COVID-19) is a pandemic-spread systemic infectious disease with prominent respiratory manifestations and significant associated morbidity and mortality. Elderly people are most significantly affected with mortality ranging from 2.4% (age 60-69) to 19.6% (age>80) in European Countries. The prevalence of COVID-19 of and of its complications in patients with immune-mediated disorders, remains unclear. The frequency and impact of COVID-19 on patients with IgG4-related disease (IgG4-RD), many of whom are on concurrent immunosuppression has not been addressed.

Objectives: To assess the epidemiological and clinical relevance of COVID-19 in patients with IgG4-RD.

Methods: This is a multi-centre retrospective observational study of IgG4-RD patients from France, Italy, Spain and the United Kingdom. Demographics, comorbidities, IgG4-RD features, current and past treatment along with COVID-19 suggestive symptoms and COVID-19 diagnoses from February 2020 to January 2021 were recorded by means of direct or phone interviews. Patients with reverse-transcriptase polymerase chain reaction-confirmed (cCOVID) or presumed COVID-19 based on clinical, serological or imaging features (pCOVID) were pooled for analysis (tOTCVD) and compared to patients who were not diagnosed with COVID-19. Intergroup comparison of categorical and quantitative variables were performed using the chi-square test with Fisher’s correction and the Mann-Whitney’s test respectively. Data are expressed as median (interquartile range) unless otherwise specified.

Results: A total of 305 patients [71% males, median age 64 (54-74) years] were studied. Pancreato-biliary disease was the most frequently observed IgG4-RD phenotype (39%). Fifty-one percent of patients were taking corticosteroids at time of interview and 30% were on biological or conventional immunosuppressants. Thirty-two of the 30 patients with COVID-19 died (13%); 3/4 aged >80 years). Having one or more infected family members was a risk factor for COVID-19 in patients with IgG4-RD (OR=19.9; p<0.001). No other demographic, clinical or treatment features associated with COVID-19. In particular there was no association between adverse outcomes with COVID-19 and higher doses of steroids (>20mg) or rituximab administration.

Conclusion: The prevalence and course of COVID-19 in IgG4-RD patients are similar to those of the general population of the same age, with no evident impact of disease- or treatment-related factors to the bacteral infectious risk, Effective public health countermeasures might be beneficial for patients with IgG4-RD.

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POS1248

SAFETY PROFILE OF PFIZER-BIONTECH COVID-19 VACCINE IN PATIENTS WITH RHEUMATIC DISEASES: PRELIMINARY ASSESSMENT

G. Cuomo, M. Atteno, C. Nalciero, L. E. Adinolfi, C. Romano, 1University of Campania Studies “Luigi Vanvitelli”, Precision of Medicine, Napoli, Italy; 2Azienda Ospedaliera di Rieile Nozionale San Giuseppe Moscati, Internal Medicine, Avellino, Italy; 3P. Scarlato, U.O. Dipartimentale di Reumatologia, Scalfati, Italy; 4University of Campania Studies “Luigi Vanvitelli”; Department of Medical and Surgical Sciences, Napoli, Italy

Background: Efficacious vaccines are urgently needed to contain the ongoing coronavirus disease 2019 (Covid-19) pandemic of infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). On December 11, 2020, the Food and Drug Administration (FDA) issued an Emergency Use Authorization (EUA) for Pfizer-BioNTech COVID-19 vaccine to prevent COVID-19, administered as 2 doses separated by 21 days. On December 27, 2020, Italy started use of Pfizer-BioNTech COVID-19 vaccine and initial doses were reserved for healthcare personnel

Objectives: The primary end points were the safety of each administered dose in patients with Rheumatic diseases (RDs)

Methods: In this multicenter, observational study, we interviewed by phone 27 patients with rheumatic diseases (RDs) and 30 healthy subjects receiving the Pfizer-BioNTech vaccine (0.3ml i.m. in two doses 21 days apart, time 0 and 3 weeks).

Results: As of 30 January 2021, 57 subjects (27 patients and 30 healthy subjects) were interviewed. The epidemiological and clinical features of the 27 patients are reported in Table 1. Among the whole population, 35 subjects (16 patients and 19 healthy subjects) complained of an adverse event after the first vaccine dose, with symptom onset occurring within 1 day of vaccination. All adverse events (100%) were classified as nonserious and included: injection site pain (17), fatigue (5), headache (16), fever (3), tachycardia (2), and paresthesia (2).

After 21 days, 6 patients and 11 healthy subjects received the second vaccine dose. Fifteen patients and 10 healthy subjects (88%) reported adverse events, again categorized as nonserious. Specifically, injection site pain (7), fatigue (10), headache (10), fever (10), paresthesia (1), cutaneous vasculitis (1), itch and scratchy throat (1), diarrhea (4), lymph node enlargement (1) were recorded. No differences were noted between patients with RDs and healthy subjects in terms of adverse events.

Conclusion: This preliminary study shows that the Pfizer-BioNTech COVID-19 vaccine is as safe in patients with RDs as in healthy subjects. Whether patients with RDs will develop protective titers of anti-SARS-CoV-2 antibodies as compared to healthy subjects will be evaluated in further, ongoing studies.

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POS1249 MULTISYSTEM INFLAMMATORY SYNDROME IN CHILDREN DURING THE COVID-19 PANDEMIC IN TURKEY: FIRST REPORT FROM THE EASTERN MEDITERRANEAN

Y. Oszureköl1, S. Gürel2, S. Kesic3, U. Kara Akça3, P. D. Oyar1, K. Aybak1, D. Karacanoglu1, O. Santos Nakjo1, S. Ilb1, B. Kafun1, A. B. Cengiz1, Ö. Basaran1, B. C. Cura Yala1, J. Karakaya, Y. Bilgen2, B. Bayrakci2, M. Ceyhan1, S. Özen1, 1Hacettepe University School of Medicine, Department of Pediatric Infectious Diseases, Ankara, Turkey; 2Hacettepe University School of Medicine, Department of Pediatrics, Division of Pediatric Intensive Care Unit, Ankara, Turkey; 3Hacettepe University School of Medicine, Department of Pediatrics, Division of Pediatric Rheumatology, Ankara, Turkey; 4University of Health Science Ankara Training and Research Hospital, Department of Pediatric Infectious Diseases, Ankara, Turkey; 5Hacettepe University School of Medicine, Department of Biostatistics, Ankara, Turkey

Background: The severity of COVID-19 symptoms can range from mild to severe. Severe COVID-19 cases with excessive hyperinflammation have many overlap features with multisystem inflammatory syndrome in children (MIS-C).

Objectives: We aimed to describe the typical clinical and laboratory features and treatment of children diagnosed with MIS-C and to understand the differences as compared to severe/critical pediatric cases with COVID-19 in an eastern Mediterranean country.

Methods: Children (aged <18 years) who diagnosed with MIS-C and severe/critical pediatric cases with COVID-19 were observed respectively in 11, 11, 21 and 57% of COVID-19 patients. Vitamin D serum levels were found significantly lower in COVID-19 patients than in CNT (median 8 vs 16 ng/ml, p<0.001). A statistically significant positive correlation was observed between vitamin D serum levels and severity of radiologic pulmonary involvement in the children studied, respiratory parameters (PaO2, SO2, PaCO2, PaO2/FiO2), clinical and laboratory parameters (25OHD, vitamin D, C-reactive protein) and type of radiological pulmonary involvement were collected at hospital admission. Statistical analysis was performed by non-parametric tests.

Results: Vitamin D sufficiency (>30 ng/ml), insufficiency (between 20 and 30 ng/ml) and severe deficiency (<10 ng/ml) were observed respectively in 11, 11, 21 and 57% of COVID-19 patients. Vitamin D serum levels were found significantly lower in COVID-19 patients than in CNT (median 8 vs 16 ng/ml, p<0.001). A statistically significant positive correlation was observed between vitamin D serum levels and severity of radiologic pulmonary involvement, respiratory parameters (PaO2, SO2, PaCO2, PaO2/FiO2), clinical and laboratory parameters (25OHD, vitamin D, C-reactive protein) and type of radiological pulmonary involvement were collected at hospital admission. Statistical analysis was performed by non-parametric tests.

Conclusion: This study confirms that severe vitamin D deficiency is associated with more severe lung involvement, longer disease duration and risk of death in elderly COVID-19 patients.

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POS1250 VITAMIN D DEFICIENCY IS MAINLY ASSOCIATED WITH SEVERE LUNG INVOLVEMENT, LONGER DISEASE DURATION AND RISK OF DEATH IN ELDERLY COVID-19 PATIENTS

A. Sull1, E. Gotelli2, A. Casabella1, M. Gross3, C. Schenen1, C. Pizzorni1, S. Paolino1, E. Alessandri1, V. Smith1, M. Cutolo1, Laboratory of Experimental Rheumatology and Academic Division of Clinical Rheumatology, Department of Internal Medicine, University of Genova, IRCCS San Martino Polyclinic Hospital, Genova, Italy; 2Pneumology Unit, IRCCS San Martino Polyclinic Hospital, Genova, Italy; 3Department of Rheumatology, Ghent University Hospital, Department of Internal Medicine, VIB Inflammation Research Centre Ghent University, Ghent, Belgium

Background: Vitamin D regulates the innate and adaptive immune system responses and low vitamin D levels have been associated with the increased risk of respiratory tract infections (1). Vitamin D deficiency has been recently reported to interfere with the prognosis of COVID-19 (2,3).

Objectives: The aim of this study was to correlate the 25OH-vitamin D serum levels with lung involvement and disease severity, in a cohort of elderly patients hospitalized for SARS-CoV-2 infection.

Methods: Sixty-five COVID-19 patients (mean age 76±13 years) and sixty-five sex- and age-matched control subjects (CNT) were included in the study. Respiratory parameters (PaO2, SO2, PaCO2, PaO2/FiO2), clinical and laboratory parameters (25OH-vitamin D, C-reactive protein) and type of radiological pulmonary involvement were collected at hospital admission. Statistical analysis was performed by non-parametric tests.

Results: Vitamin D deficiency (<30 ng/ml), insufficiency (between 20 and 30 ng/ml), deficiency (between 10 and 20 ng/ml) and severe deficiency (<10 ng/ml) were observed respectively in 11, 11, 21 and 57% of COVID-19 patients. Vitamin D serum levels were found significantly lower in COVID-19 patients than in CNT (median 8 vs 16 ng/ml, p<0.001). A statistically significant positive correlation was observed between vitamin D serum levels and radiologic pulmonary involvement, respiratory parameters (PaO2, SO2, PaCO2, PaO2/FiO2), clinical and laboratory parameters (25OH-vitamin D, C-reactive protein) and type of radiological pulmonary involvement were collected at hospital admission. Statistical analysis was performed by non-parametric tests.

Conclusion: Vitamin D was significantly lower in COVID-19 patients with either diffuse/severe interstitial lung involvement (p<0.05) or multiple lung consolidations (p<0.0001) than in those with mild radiological lung involvement. Significantly lower vitamin D serum levels were found in COVID-19 patients who died during hospitalization, compared to those who survived (median 3 vs 8 ng/ml, p=0.05). Finally, a statistically significant negative correlation was found between vitamin D serum levels and severity of radiologic pulmonary involvement: vitamin D was significantly lower in COVID-19 patients with either diffuse/severe interstitial lung involvement (p<0.05) or multiple lung consolidations (p<0.0001) than in those with mild radiological lung involvement. Significantly lower vitamin D serum levels were found in COVID-19 patients who died during hospitalization, compared to those who survived (median 3 vs 8 ng/ml, p=0.05). Finally, a statistically significant negative correlation was found between vitamin D serum levels and disease duration (p=0.04), C-reactive protein (p=0.04) and disease duration (p=0.05).

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POS1251 ROLE OF SYSTEMIC AUTOIMMUNE CONDITIONS IN HOSPITAL ADMISSIONS RELATED TO COVID-19

I. Perez-Sancristóbal1, L. Lopez Pedraza2, M. P. Alvarez Hernandez2, J. I. Colomer3, A. Madrid García2, B. Fernandez1, C. Martinez Prada1, L. Rodriguez Rodriguez2, A. Mucientes2, L. Leon2, L. Abasolo2, 1Hospital Clínico San Carlos, Reumathology, Madrid, Spain; 2Instituto de Investigación Sanitaria del Hospital Clínico San Carlos, Reumathology, Madrid, Spain; 3Fundación para la Investigación Biomedica, Reumathology, Madrid, Spain

Background: The COVID-19 pandemic continues worldwide and has had a strong impact on public health, quality of life and economy of the general population. To date, the number of infections and deaths are still increasing. From the beginning of the pandemic, efforts were intensified to identify risk factors for development of the severe form of COVID-19. In this sense underlying medical comorbidities have been shown to have a worse prognosis in these patients.

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