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63rd ASH Annual Meeting Abstracts

POSTER ABSTRACTS

652.Multiple Myeloma and Plasma Cell Dyscrasias: Clinical and Epidemiological

COVID-19 in Patients with Monoclonal Gammopathy of Undetermined Significance (MGUS): An Observational Retrospective Study

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Abstract Introduction. Monoclonal Gammopathy of Undetermined Significance (MGUS) is a pre-malignant plasma cell disorder reported in approximately 3% of individuals aged > 50 years, characterized by a low risk (about 1% per year) of evolution into "overt" myeloma or other lymphoproliferative diseases. It is classified as IgM-MGUS (15%) and non-IgM-MGUS (80-85%). MGUS is usually asymptomatic, but a higher risk of deep venous thrombosis and infection has been reported. In March 2020, "Coronavirus Disease 2019" (COVID-19) outbreak has been declared a pandemic by the World Health Organization. Regarding outcome of COVID-19 in patients with plasma cell dyscrasia, many papers have been published about multiple myeloma (MM), reporting a higher fatality rate respect to general population, while few data are available about the outcome of SARS-CoV-2 infection in patients with MGUS. **Methods.** We collected clinical data on MGUS Apulian patients with SARS-CoV-2 infection, tested by RT-PCR on nasopharyngeal swabs between March 1st, 2020 and April 30st, 2021. Among 1454 MGUS patients followed at our center, 91 were found SARS-CoV-2 positive, enrolled in this observational, retrospective study and compared with 182 age and sex-matched normal controls. Clinical data collected regarded: symptoms, hospitalization, hospitalization in intensive care unit, death. Calculations were carried out using Stata MP17. **Results.** Mean age of whole group (n. 273) was 65,3+/-13,3 years (range: 29-89), with no statistically-significant differences (p=0,734) observed between MGUS-group (65,6+/-13,3; range: 29-89 years) and controls-group (65,2+/- 13,4; range: 29-89 years). Mean number of comorbidities in the whole group was 1,2+/-1,2 (range: 0-5) and no statistically-significant differences (p=0,844) were found between MGUS-group (1,3+/-1,3; range: 0-5) and control group (1,2+/- 0,9; range: 0-3). About MGUS-subtypes, the most frequent was IgG-kappa (n=36; 39,6%), followed by IgG-lambda (n=27; 29,7%) and IgM-kappa (n=6; 6,6%). Regarding MGUS risk-stratification, application of Mayo Clinic model identified 22 patients (24,2%) with low risk, 22 (24,2%) with low-intermediate risk, and 3 (3,3%) with high-intermediate risk; in 44 patients (48,3%) this data was missing. Immunoparesis was present in 13 cases (14,3%) and absent in 55 (60,4%), missing in 23 (25,3%). No patient developed MM or a lymphoproliferative disease progression during and immediately after COVID-19. Rates of symptoms (59,3% vs 56%), hospitalization (20,9% vs 14,3%), hospitalization in intensive care unit (11% vs 8,8%) and death (8,8% vs 5,5%) were slightly higher in MGUS group than controls (Table 1), but these differences were not statistically significant. A statistically significant association (p<0,05), was observed between higher age and death in both groups. Lastly, incidence of SARS-CoV-2 infection in MGUS patients (6,2%) was not statistically significant different from that observed in the population of the Puglia region (5,8%) in the same period. **Conclusions.** To our knowledge, this report is the largest study of patients with MGUS and SARS-CoV-2 infection to date. In our study patients with MGUS did not show an increased incidence of this infection compared to the general population and did not appear to represent a risk factor for poor outcome in COVID-19.

Disclosures No relevant conflicts of interest to declare.

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	MGUS (n=91)	Controls (n=182)	Total (n=273)	p-value
Symptoms, n (%; 95%CI)	54 (59,3; 48,5-69,5)	102 (56,0; 48,5-63,4)	156 (57,1; 51,0-63,1)	0,604
Hospitalization, n (%; 95%CI)	19 (20,9; 13,1-30,7)	26 (14,3; 9,5-20,2)	45 (16,5; 12,3-21,4)	0,166
Hospitalization in ICU, n (%; 95%CI)	10 (11,0; 5,4-19,3)	16 (8,8; 5,1-13,9)	26 (9,5; 6,3-13,6)	0,560
Death, n (%; 95%CI)	8 (8,8; 3,9-16,6)	10 (5,5; 2,7-10,0)	18 (6,6; 4,0-10,2)	0,301

ICU: intensive care unit