

PROGNOSTIC FACTORS OF IMPACT TO THE COURSE AND OUTCOME OF COVID-19 INFECTION IN PATIENTS WITH MULTIPLE MYELOMA

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Background: During the Covid19 pandemic, patients with multiple myeloma (MM) are particularly vulnerable.

Aim: The aim of study was to analyze prognostic factors with impact to the outcome of Covid19 infection in MM.

Patients and treatment: The study included 53 patients treated by MM and Covid19 infection, during March 2020- November 2021. Clinical characteristics were in accordance with general MM population. Regarding Revised ISS (R-ISS) score, R-ISS1 had 17%, R-ISS2 58%, and R-ISS3 25%. Treatment was applied according to National Protocol for Covid19 infection. From January 2021 - November 2021, 9/24pts (37.5%) were vaccinated against Covid19.

Results: At the moment of Covid19 detection, 37pts (70%) had active MM, while 30% were in follow-up during MM remission. All of 37pts with active MM had immunoparesis. Active MM had 15/19pts (78.9%) with IL-6 elevation, and 35/46pts (87%) with elevated d-dimer. Pneumonia occurred in 52pts, bleeding in 2pts, and thrombosis in 4pts. Intensive Care requested 7pts, with lethal outcome of 6pts. Semi-Intensive Care had 36pts (64%). A total of 36pts (64%) were cured, and 17pts (36%) died. The average time to recovery was 14 days (range 10-45d). After recovery, 20pts had active MM. Reinfection occurred in 5pts with active disease. All of 5pts, previously vaccinated against Covid19, completely recovered. Patients with active MM had significantly worse outcome of Covid19 infection ($p=0.003$). Immunoparesis¹ and elevated d-dimer² were associated with active disease ($p^1=0.000$; $p^2=0.002$). Increased IL-6 was observed in pts with active MM ($p=0.088$). The poor outcome of pts with MM and Covid 19 was influenced by: Age ($p=0.022$), Renal impairment ($p=0.032$), and R-ISS 3 ($p=0.042$).

Conclusion: Poor outcome of Covid19 infection may be expected in patients with active MM and renal impairment, accompanied with elevated d-dimer and IL-6, as well as immunoparesis and R-ISS 3. All vaccinated patients recovered from Covid19 infection.