

CM05**TOCILIZUMAB treatment in COVID-19**Lucija Vusić^a, Marija Gomerčić Palčić^b^a School of Medicine University of Zagreb^b Department of pulmonology, Sestre milosrdnice University Hospital Center ZagrebDOI: <https://doi.org/10.26800/LV-144-supl2-CM05> Lucija Vusić 0000-0001-9367-8651, Marija Gomerčić Palčić 0000-0002-6836-4447

Keywords: COVID-19, interleukin-6, tocilizumab

INTRODUCTION/OBJECTIVES: Tocilizumab (TCZ) is a humanized monoclonal antibody against the interleukin-6 (IL-6) receptor. It is found that IL-6 is one of the most important cytokines involved in COVID-19-induced cytokine storms and its higher levels are found in critically ill patients with COVID-19. Real-life data about the effect of TCZ on the inflammatory activity in COVID-19 patients as well as its side effects are still missing.

MATERIALS AND METHODS: This is a retrospective observational study conducted from October 2021 until January 2022 in the COVID-19 Departments and Intensive Care Units of Sestre milosrdnice University Hospital Center in Zagreb. Tocilizumab was administered intravenously at 8 mg/kg body weight to 31 patients, 7 females and 24 males who had high levels of interleukin-6.

RESULTS: The average age of those patients was 60 years. 13 of them had an excellent response resulting in rapid respiratory recovery and were dismissed from the hospital. However, 18 of them died. The most common comorbidity was type 2 diabetes mellitus. During the follow-up period, the most frequent complications were thromboembolic events and nosocomial infections.

CONCLUSION: Tocilizumab has shown to be effective in certain subpopulations of critically ill patients with COVID-19 in our Center. However, some factors, such as levels of IL-6, duration of disease, and comorbidities, need to be taken into consideration before starting the treatment.

CM06**Aortic root valve-sparing surgery: influence on the left ventricle**Lorka Tarnovski^a, Igor Rudež^b^a Family medicine practice „dr. Ivančica Peček“, Health center Zagreb West^b Department of Cardiac and Transplant Surgery, University Hospital „Dubrava“DOI: <https://doi.org/10.26800/LV-144-supl2-CM06> Lorka Tarnovski 0000-0002-6576-8614, Igor Rudež 0000-0002-7735-6721

Keywords: aortic regurgitation, aortic root surgery, valve-sparing

INTRODUCTION/OBJECTIVES: Aortic regurgitation (AR) is a state of excessive blood return from the aorta to the left ventricle (LV) during diastole. Surgical therapy of AR includes valve-sparing surgery (AVRep) with or without root and ascending aorta replacement or valve replacement (AVR).

MATERIALS AND METHODS: The research included a total of 158 patients (30 women and 128 men, the average age 53.7 ± 14.1 years) who underwent surgical treatment for AR in Clinical hospital Dubrava between 2014 and 2020. AVRep was used in 107, and AVR in 58 patients. Patients had done the preoperative, postoperative and follow-up transthoracic echocardiography.

RESULTS: Significantly more patients with NYHA grade I (30 vs 10, $p = 0.002$) and II (68 vs 28, $p < 0.001$) underwent AVRep, and more postoperative trivial (27 vs 2, $p < 0.001$) and mild (14 vs 0, $p < 0.001$) AR were noted after AVRep. There was no difference in ejection fraction (LVEF) and LV diameters postoperatively. An initial postoperative decrease of LVEF and a later increase in LVEF were noted, but significantly more after AVRep (58 vs 54, $p = 0.005$). A multiple regression analysis enhanced a slight negative effect of AVR method on LVEF in follow-up, more pronounced in older men ($\beta = -4.21$, $R^2 = 0.0431$, $p = 0.009$).

CONCLUSION: AVRep has shown to be a method of choice for patients with the dilatation of the aortic root and slightly deformed valves. In comparison to AVR, AVRep results in lower mortality and lower incidence of thromboembolic events. The AVRep showed a significant LV function recovery as well, especially in women and younger.

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