

**P400 CLINICAL IMPACT OF PROPHYLACTIC ANTICOAGULANT TREATMENT WITH ENOXAPARIN IN CORONAVIRUS DISEASE 2019 (COVID-19) ELDERLY PATIENTS**

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**Introduction:** COVID-19 patients are at increased risk of venous thromboembolism. The WHO/IS recommends daily prophylactic anticoagulation therapy with low-molecular weight heparins in COVID-19 patients. Our study evaluated the efficacy of a prophylactic therapy with enoxaparin on clinical outcomes in COVID-19 patients.

**Methods:** This is a retrospective analysis of 125 SARS-CoV-2 patients hospitalized from 16 MARCH 2020 to MAY 7th, 2021. In this phase of COVID-19 pandemic, man and woman in-patients and out-patients received enoxaparin either at prophylactic or therapeutic dosage. Based on these criteria, we examined 85 patients who received PROPHYLACTIC enoxaparin (group E, Enoxaparin) and 40 subjects undergone THERAPEUTIC Enoxaparin (group T, Therapeutic). Of them, 95 patients were hospitalized after Sars-Cov2 positive swab and 30 received prophylactic dosage at home.

**Results:** After applying a propensity score matching for age and gender, considering hospitalized patients, there were no significant differences between the two groups (E, T). During hospitalization, a significantly higher percentage of patients of E group developed ARDS (37 vs 13,  $p=0.0001$ ) and needed for non-invasive ventilation. No significant difference between the two groups was found about incidence of intubation (20 in E vs. 19 in T group;  $p=0.4$ ) and pulmonary embolism (17 vs 5,  $p=0.4$ ). In-hospital death occurred in 17 E group patients and in 10 T group patients ( $p=0.251$ ). No difference on 30-days mortality was found between two groups ( $p=0.287$ ). N. 15 patients of T group experienced hemorrhagic events and interrupted enoxaparin therapy. N. 17 of them experienced adverse events (mainly thrombocytopenia).

**Conclusions:** Among patients with SARS-CoV-2 infection, a therapeutic dose of enoxaparin is not associated with prognostic benefit and did not affect in-hospital and 30-days mortality. A risk-adapted approach to reduce the dose of anticoagulation agent should be considered in selected COVID-19 patients with evidence of coagulopathy. In summary, current data suggest the use of therapeutic-dose LMWH to reduce VTE, it, may increase bleeding, and should be avoided in hospitalized patients with severe COVID-19 in critical care settings. Lastly, randomized trials in this patient population are still ongoing and novel antithrombotic strategies in critically ill COVID-19 patients are needed.