BACKGROUND:
- Metabolic syndrome (MS) and its components contribute to severe and worse outcomes of coronavirus disease 2019 (COVID-19).
- We aimed to describe the impact of MS on COVID-19 infection.

PATIENTS AND METHODS:
- A retrospective study, including COVID-19 patients.
- Hospitalized in an infectious diseases department
- Period: November 2020 - February 2021.
- The population was divided into:
  - G1 with MS.
  - G2 without MS.
- MS has been defined by the co-occurrence of three of these cardiovascular risk factors (insulin resistance, obesity, atherogenic dyslipidemia and hypertension).

RESULTS:
- In total, 351 patients were collected.
- The main cardiovascular risk factors:
  - diabetes (43.5%).
  - high blood pressure (43.8%).
  - stroke (12.8%).
  - dyslipidemia (9.4%).
- The prevalence of MS in the population (Figure 1)

CONCLUSION:
- Based on our results, MS is associated with advanced age. MS leaded to severe forms. In fact, pre-existing endothelial dysfunction in MS may play a crucial role for the development of severe COVID-19.