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BACKGROUND:

There are some conflicting data on the effect of androgen deprivation therapy (ADT) in the course of SARS-CoV-2 infection. We assessed the incidence rate and severity of SARS-CoV-2 in patients with prostate cancer receiving ADT, with either GnRH antagonist or agonist, before vaccination for COVID-19. These data were compared with the incidence and mortality in the general population (without ADT) in the same geographic area and time.

METHODS:

A retrospective cohort of 103 patients from a single institution was carried out, using medical records and telephone or in-person interviews. Data were collected between March 2020 (month of the first case of COVID-19 in the city) and March 2021. We also collected data from the public registry on the incidence and mortality of COVID-19 from male patients over 50 years of age without ADT exposure (183.980 patients).

RESULTS:

We gathered data from 103 patients on ADT. The incidence of COVID-19 infection in men over 50 years old with and without the use of ADT from March 2020 to March 2021 was 18.4% and 25.8%, respectively. The mortality rate in the general male population over 50 years

of age was 7.71%, and 5.26% in those patients using ADT. Of the 19 patients who had COVID-19 infection, 15 had the mild form (78.9%), with no need for oxygen supplementation. Two patients (10.5%) had moderate symptoms with indication for non-invasive oxygen supplementation and others two patients (10.5%) required orotracheal intubation and mechanical ventilation, one of which died. Among the infected patients, there were two patients aged 50-60 years, eight patients aged 60-70 years and nine patients aged over 70 years. All patients with moderate to severe symptoms were older than 60 years in this series.

CONCLUSIONS:

In our series, we had a lower incidence of COVID-19 in patients older than 50 years with prostate cancer receiving ADT compared to the general population of age-matched males. The use of ADT showed a 28.7% reduction in the incidence of COVID-19 infection. We also collected data on deaths from patients infected with or without ADT use, with a 32% reduction in mortality rates in patients undergoing hormone deprivation therapy. Thus, our data suggest that ADT can protect prostate cancer patients against COVID-19 infection as well as reduce SARS-CoV-2 mortality.

USE ADT REDUCED



28,7%

COVID-19
INFECTION