Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

P0848 Severity of COVID-19 infection in prostate cancer patients and effect of ADT on disease presentation

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Introduction & Objectives: The TMPRSS2 protein has been found to be involved as a critical host cell factor in severe acute respiratory syndrome caused by coronavirus 2(SARS-CoV-2). The production of this protein is regulated by the androgen receptor (AR), also in non-prostatic tissues, including the lung. There is the speculation that androgen deprivation therapy (ADT) may protect patients affected by prostate cancer (PC) from SARS-CoV-2 infection. Our goal is to analyze the severity of COVID-19 in PC patients and the possible influence of ADT on this infection.

Materials & Methods: Retrospective study of patients treated for COVID-19 between March 15th and May 15th 2020 in our institution who had previous diagnosis of PC. Patients were divided into two: Those treated with ADT during the infection or the year before, and those who were not treat with ADT on that period. Differences between groups in demographic characteristics, parameters of PC disease, risk factors for SARS-CoV-2 pneumonia, the presence of severe COVID-19 and mortality rates were analyzed.

Results: During the study period, a total of 1365 patients were treated in our center for COVID-19 documented with positive PCR. From a total of 1349 subjects registered in our PC database, 156 were on ADT treatment and 1193 were not. Out of the total, 61 (4.52%) PC patients suffered from COVID-19, 11 (18.0%) belonged to the ADT group and 50(82.0%) to the non-ADT group. The mean age of the series was 77.6 years (SD:7.7). The cumulative incidence recorded of COVID-19 in total PC patients was 4.5% (95%CI: 3.5-5.8). Demographic variables, comorbidities and risk factors for infection were quite homogeneous in both groups. Although a worse tendency was observed in the non-ADT group, no statistically significant differences were found in any of the variables analyzed. Regarding the influence of ADT on the course of the disease, no statistically significant differences were found neither in the exitus rate (27.3% vs. 34.0%; p 0.481), nor in the presence of severe COVID-19: need for intubation or ICU admission(0% vs 6.3%; p 0.561) and need for corticoid treatment, interferon beta or tocilizumab (60% vs. 34.7%; p 0.128). In the univariate analysis, treatment with ADT was not found to be a protective factor for worse clinical evolution (RR 1.11; 95%CI 0.67-1.85; p=0.68) or exitus (RR 0.8; 95%CI 0.28-2.27; p=0.68). We also found no statistically significant differences when multivariate analysis adjusted for clinically relevant comorbidities was performed.

Conclusions: In our study, the use of ADT has not been shown to be a protective factor against serious COVID-19. In view of the results published to date, more research in this area is definitely needed to draw firm conclusions.