Efficacy of Nirmatrelvir-Ritonavir versus Azvudine for COVID-19 treatment in Tibet: A retrospective study

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Abstract

Background: No study has directly compared the efficacy of nirmatrelvir-ritonavir and azvudine for treatment. The efficacy of these two drugs at high altitudes was compared. **Materials and Methods:** This was a retrospective cohort research on hospitalized patients with COVID-19 who were treated with nirmatrelvir-ritonavir or azvudine in Tibet between August 1 and September 30, 2022. **Results:** The electronic health data of 731 patients were retrospectively reviewed. Nirmatrelvir-ritonavir and azvudine groups enrolled 338 and 147 patients, respectively. Among patients with mild, common, and severe (including critical) COVID-19, there was no difference in the median duration of hospitalization between treatment with nirmatrelvir-ritonavir and that with azvudine: 8 (5–10.25) vs. 9 (5–13) (P=0.096); 8 (5–11) vs. 8 (5–13) (P=0.227); and 13 (7–17.75) vs. 10 (7.5–17.5) (P=0.994) days, respectively. Moreover, patients in the nirmatrelvir-ritonavir group had a shorter median time for nuclear acid negative conversions (NANC) than those in azvudine group: 6 (4–9) vs. 10 (6.25–13.75) (P=0.000), 8 (5–12) vs. 10.5 (7–14) (P=0.013), and 7 (5.25–12.75) vs. 15 (7.5–23.5) (p=0.023) days, respectively. **Conclusion:** Azvudine yielded a longer time for NANC and an equivalent duration of hospitalization and may have comparable efficacy with nirmatrelvir-ritonavir, making it a viable treatment option for COVID-19.

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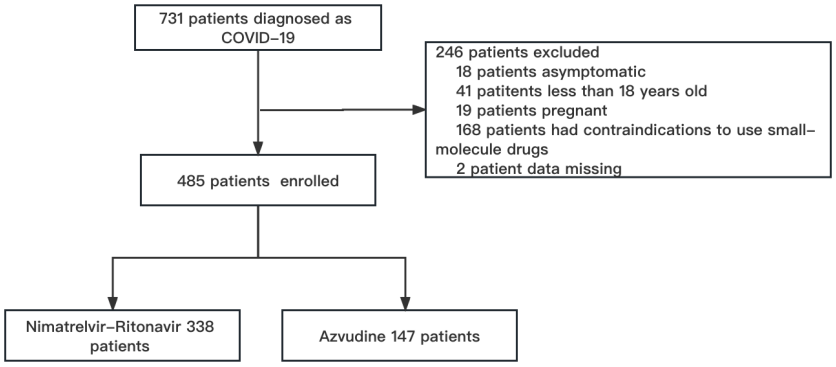

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