scientific reports

OPEN

Addendum: The efficacy and safety of Favipiravir in treatment of COVID-19: a systematic review and meta-analysis of clinical trials

Soheil Hassanipour[ID], Morteza Arab-Zozani[ID], Bahman Amani[ID], Forough Heidarzad[ID], Mohammad Fathalipour[ID] & Rudolph Martinez-de-Hoyo[ID]

In the original version of this Article we included the data reported in a preprint by Dabbous et al. entitled "Safety and efficacy of favipiravir versus hydroxychloroquine in management of COVID-19: A randomised controlled trial", which was later published[1]. After publication of our Article it was brought to our attention that Dabbous et al.' paper had subsequently been retracted[2]. We have therefore repeated sub-analyses in which this study was originally included to establish the effect of the removal of this data from the review.

The results of the analyses reported in the original Figures 3 and 7, updated for removal of Dabbous et al. data, are shown below (Figure 1 and 2, respectively).
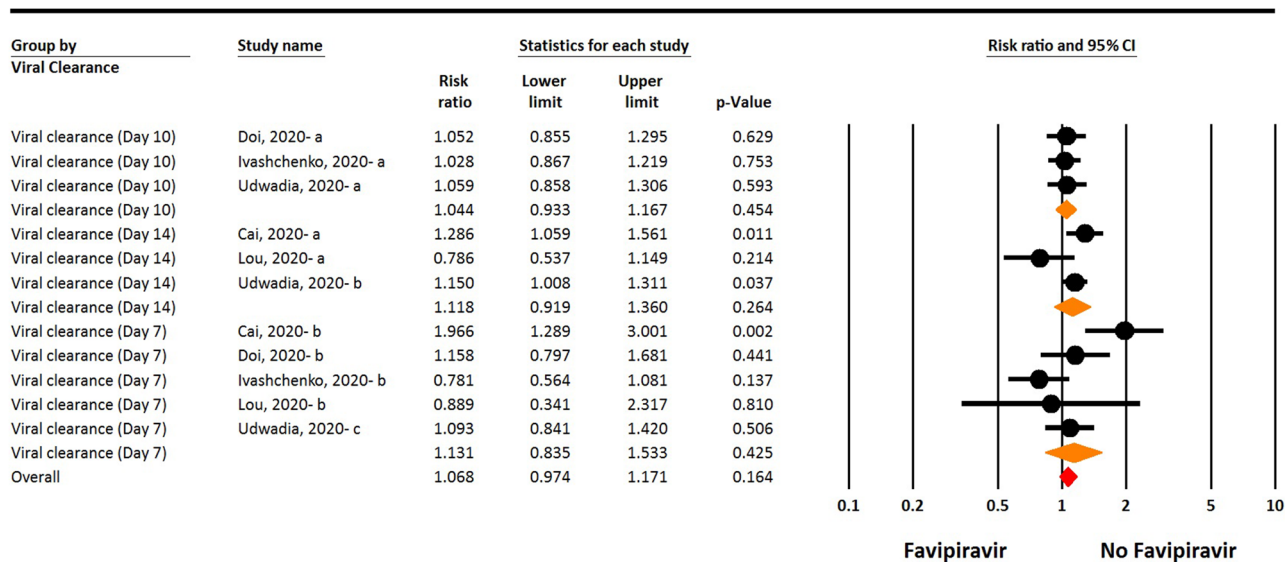
Viral clearance

The result of the updated meta-analysis show that viral clearance 7, 10, and 14 days after hospitalization is not statistically different between the Favipiravir and control groups (RR = 1.13, 95% CI: 0.83-1.53; P = 0.425, I2 = 66.0%, P = 0.019 for 7 days; RR = 1.04, 95% CI: 0.93-1.16; P = 0.454, I2 = 0.0%, P = 0.973 for 10 days; RR = 1.11, 95% CI: 0.91-1.36; P = 0.264, I2 = 60.9%, P = 0.077 for 14 days) (Fig. 1).
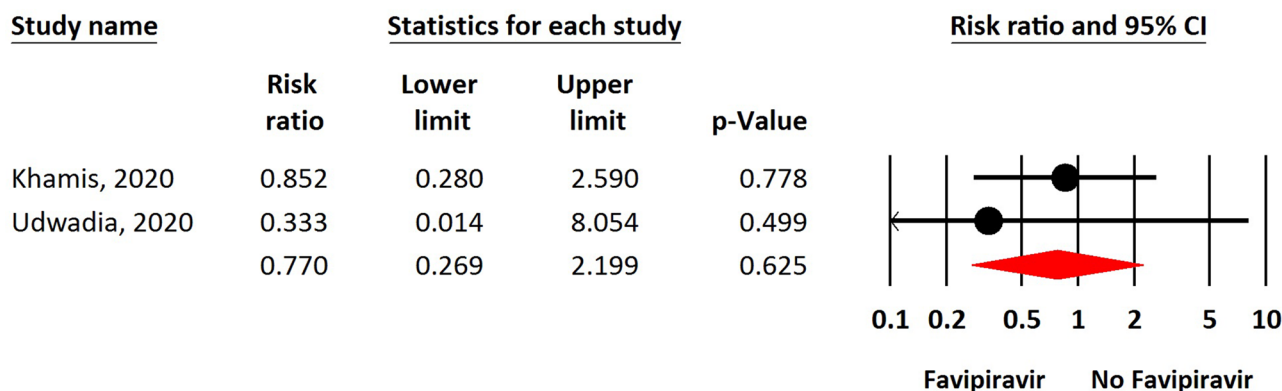
Mortality

Based on the updated meta-analysis, the mortality rate in the Favipiravir group was approximately 23% lower than in the control group, but this finding is not statistically significant (RR = 0.77, 95% CI: 0.26-2.19; P = 0.625, I2 = 0.0%, P = 0.585) (Fig. 2).

Figure 1. The updated meta-analysis of viral clearance of Favipiravir on COVID-19 patients after removal of Dabbous et al. data (Orange diamond: summary of sub groups; Red diamond: summary of total).

Figure 2. The updated meta-analysis of mortality of Favipiravir on COVID-19 patients after removal of Dabbous et al. data (Red diamond: summary of total).

References

1. Dabbous, H. M. *et al.* RETRACTED ARTICLE: Safety and efficacy of favipiravir versus hydroxychloroquine in management of COVID-19: A randomised controlled trial. *Sci. Rep.* **11**, 7282 (2021).
2. Dabbous, H. M. *et al.* Retraction Note: Safety and efficacy of favipiravir versus hydroxychloroquine in management of COVID-19: A randomised controlled trial. *Sci. Rep.* **11**, 18983 (2021).