Lopinavir/ritonavir beneficial in SARS

Lopinavir/ritonavir is beneficial in the treatment of severe acute respiratory syndrome (SARS), report researchers from Hong Kong.

Their open-label study involved 41 patients with SARS who were treated with a combination of oral lopinavir/ritonavir 400mg/100mg given twice daily for 14 days, in addition to ribavirin and corticosteroids at reducing dosages.*

The composite adverse outcome rate (development of acute respiratory distress syndrome [ARDS] or death) at 21 days was significantly lower in patients receiving lopinavir/ritonavir, compared with a group of 111 patients treated with ribavirin and corticosteroids alone, serving as historical controls (2.4% vs 28.8%). In the treatment group, only one patient developed ARDS, and there were no deaths in this group. In the control group, 25 patients (22.5%) met the ARDS criteria of hypoxaemia, and 7 (6.3%) had died by day 21. Patients treated with lopinavir/ritonavir also had a milder disease course, with a lower proportion of patients having diarrhoea, recurrent fever and worsening of the chest x-ray. Subgroup analysis showed that patients receiving lopinavir/ritonavir before pulse methylprednisolone (n = 12) had a decreasing viral load, a rising lymphocyte count, required significantly lower doses of pulse methylprednisolone and had a lower rate of nosocomial infections, compared with patients receiving lopinavir/ritonavir after pulse methylprednisolone (29) or the control group.

* Ribavirin was administered orally for 14 days at a loading dose of 4g, followed by 1.2g every 8 hours, or IV 8 mg/kg every 8 hours if oral treatment was not tolerated. Corticosteroids, with starting doses of hydrocortisone 100–200mg every 6–8 hours or methylprednisolone 3 mg/kg/day, were given for 21 days. Patients with worsening condition received pulses of IV methylprednisolone 0.5–1 g/day up to 4g.

Chu CM, et al. Role of lopinavir/ritonavir in the treatment of SARS: initial virological and clinical findings. Thorax 59: 252-256, No. 3, Mar 2004

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