Extracorporeal membrane oxygenation has important role

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EDITOR—Rawson et al highlighted the potentially devastating effects of varicella infection, particularly the fact that adults in the United Kingdom are dying from it and these deaths are increasing in number.**1** We know the pneumonitis caused by varicella infection can lead to respiratory failure that is often the cause of death in these patients. Antiviral treatment may help in such patients, but only if their severely compromised physiology can be adequately supported until they recover.

Extracorporeal membrane oxygenation has been reported to be used successfully in cases of adult respiratory failure resulting from varicella pneumonia and we would like to bring the results of such intervention to the attention of Rawson et al.**2**–**5** We have treated 15 adults with this procedure for confirmed varicella pneumonitis in Leicester between August 1992 and December 1999. These 15 patients had a mean age of 36 years (range 24-61), and were significantly hypoxic on referral with a ratio of arterial oxygen tension to fraction of inspired oxygen (PaO_2/FiO_2) of 8.09 kPa. The overall survival rate in these patients was 60%. Of the 11 patients, however, we treated with venovenous extracorporeal membrane oxygenation the survival rate was 75% (compared with zero for the four patients treated with venoarterial extracorporeal membrane oxygenation).

It seems likely, therefore, that this is a treatment that should be considered for fulminant varicella pneumonitis, but the numbers treated so far are too small to be sure of the effectiveness of this invasive treatment. To resolve this uncertainty, currently all such cases in the United Kingdom can be referred for entry into the CESAR (conventional ventilation or extracorporeal membrane oxygenation for severe adult respiratory failure) trial. Suitable patients will be randomised to receive either extracorporeal membrane oxygenation or continued conventional ventilation.

Further details about the trial are available from http://www.cesar-trial.org.

References

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