INTERLEUKIN-8, AQUAPORIN-1, AND INDUCIBLE NITRIC OXIDE SYNTHASE IN SMOKE AND BURN INJURED SHEEP TREATED WITH PERCUTANEOUS CARBON DIOXIDE REMOVAL

SCHMALSTIEG FC, CHOW J, SAVAGE C, RUDLOFF HE, PALKOWETZ KH, ZWISCHENBERGER JB
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Objective
IL8, Aquaporin-1 and iNO synthase in extracorporeal CO_2 removal in smoke and burn injured sheep.

Study Design
Randomized prospective experimental outcome study comparing extracorporeal CO_2 removal plus ventilator (n = 5) with ventilator treatment alone (n = 5).

Study Population
10 adult Suffolk ewes.

Methods
Smoke inhalation injury (LD 50) plus 40% 3rd degree burn.

Results
Specific decrease of IL-8, myeloperoxidase activity, and reduction of neutrophils in lung parenchyma in animals that received percutaneous extracorporeal carbon dioxide removal ($AVCO_2R$). $AVCO_2R$ allowed significant reduction of tidal volumes and respiratory rates.