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Lung alert

Respiratory viruses are not associated with acute graft rejection during the acute phase of infection

Although several studies support the association between respiratory viruses and chronic lung rejection, the relationship between viral infection and acute rejection has not been established.

In this prospective cohort study, bronchioalveolar lavage (BAL) fluid and biopsy specimens from 343 bronchoscopic procedures performed in 77 patients were analysed over 27 months from November 2003 through March 2006. Real-time reverse-transcription polymerase chain reaction assays for detection of RNA respiratory viruses were performed on the BAL fluid specimens. The severity of acute rejection was graded as mild (A0, A1) to severe (A2–A4). The overall rate of viral infection in grade A0/A1 acute rejection cases was 25.4%, compared with 12.6% in grade A2 or higher rejection. Thus, patients with lower acute rejection grade were twice more likely to be positive for viral infection than those with higher rejection grades. The authors also found that in patients with simultaneous acute rejection and lower respiratory tract viral infection, the FEV_1 recovery rate was significantly lower than in patients who had acute rejection without a simultaneous viral infection.

This study provides evidence that respiratory viruses per se do not promote acute graft rejection, at least during the acute phase of infection, but that they do worsen graft function recovery when simultaneously present with acute rejection.

► **Soccal P**, Aubert J, Bridevaux P, *et al*. Upper and lower respiratory tract viral infections and acute graft rejection in lung transplant recipients. *Clin Infect Dis* 2010;**51**:163–70.

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