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Respiratory viruses in cystic. Fibrosis

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Respiratory viruses contribute to the morbidity of patients with underlying pulmonary disease such as Chronic bronchitis asthma and cystic fibrosis The respiratory-Virus season is often heralded by an increase in the frequency of asthmatic attacks and pulmonary exacerbations in patients with chronic bronchitis, Clinical experience with cystic fibrosis has recently prompted several investigations of the relation of viral respiratory infections to pulmonary exacerbations in these patients In a previous study reported in the Journal Wang et al prospectively surveyed 49 children and young adults with cystic fibrosis and 19 normal sibling controls for respiratory viral infections over a two year period Although the incidence of viral infection was similar in both groups, there were significant associations between these infections and deterioration in the pulmonary function growth and clinical condition of the patients with cystic fibrosis.

These results extend previous observations suggesting a similar association between viral infection and exacerbations of lower respiratory –tract signs and symptoms in patients with this disease Several facets of the Wang study deserve emphasis. Because the patients studied were limited to those who were old enough so that reliable results on pulmonary-function tests could be obtained, the influence of viral infections inpatients under the age of six years was not examined. Thus a role for respiratory viral infections in the establishment of initial and persistence bacteria endobronchitis may have been overlooked. Serologic studies were not performed to detect rhino virus, coronavirus and Mycoplasma pneumonia, nor were cultures of mycoplasma performed this points and the use of parental reporting may have led to the underestimation of the true frequency of nonbacterial respiratory infections in these patients.

Moreover it is remarkable that no viruses were isolated from any of the 1046 cultures of respiratory secretions. The absence of positive virus cultures and the findings that respiratory illnesses were more frequently reported in the patients with cystic fibrosis than in their siblings remain unexplained. It is important to note that 60 per cent of the symptomatic infections in these patients were associated with secoroconersionto viral respiratory agents.parainfluenza viruses in particular were associated with lower respiratory tract infections arming us with important information for the management and investigation of pulmonary injury in cystic fibrosis.

The contribution of respiratory viral infections to pulmonary symptoms and disease progression offers some explanation to the previously noted inconsistent responses to patients to antibacterial therapy administered for acute exacerbations of pulmonary infection

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