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Clinical characteristics of preschool children with intermittent severe asthma

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Abstract

Preschool children with intermittent or mild persistent asthma may have recurrent severe exacerbations, which can be described as "severe intermittent asthma". This subtype of infant asthma, however, has not been well characterized. We prospectively observed clinical course of infants with intermittent asthma after the 'first' severe exacerbation. A total of 29 children with asthma aged 6 to 59 months who had been classified as intermittent or mild asthma and were hospitalized because of the first episode of severe exacerbation were enrolled in the observation study. Controller medication including inhaled steroids and/or leukotriene receptor antagonists were administered to 22 patients at discharge and no controller medication was administered in 7 patients. Clinical course after discharge was prospectively followed for 6 months and outcomes were compared based on the medication status. Primary outcome was recurrence of severe exacerbation and secondary outcomes were time to exacerbation and time to loss of control. Risk factors relating to the outcomes were also analyzed. Incidence of recurrence of exacerbation was 0.66 time/patient/ year in those with controller medication and 1.00 time/patient/ year in those without controller medications. Exacerbation and loss-of-control were delayed in those with controllers. Exacerbation and/or loss-of-control were significantly associated with history of other allergic diseases, eosinophilia, and sensitization to house dust mite. These results suggested that controller medication may be beneficial for infants with intermittent asthma who are hospitalized because of the first severe exacerbation, especially for those with atopic risk factors.

Key words : intermittent asthma, preschool asthma, first severe exacerbation

