Peer Review File

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Reviewer A:

Comment 1: It would be important to define which tests were done in the search of etiology of MP and viral agents. In the results more data on viral infections should be presented. In the discussion there is no need for repetition of the results.

Reply1: We appreciate that the Reviewer could provide us with these helpful suggestions. These suggestions are significant to improve our study. we have modified our text as advised (see Page 5-6, line 150-156).

Changes in the text: Laboratory diagnosis of MP infection: serum antibody titer ≥1:160 can be used as a reference standard for recent MP infection or acute MP infection. MP infection can be diagnosed when the titer of MP-igg antibody is increased or decreased by 4 times or more in the convalescent and acute phases. In addition, MP-DNA test or MP-RNA test can also assist the diagnosis. For hospitalized patients, we mainly use IgM detection to assist diagnosis during hospitalization. Due to the limitations of previous detection methods, the virus detection rate is not high.

Reviewer B:

Comment 1: The manuscript would benefit from extensive review from a native English speaker. The manuscript also needs consistency of nomenclature throughout eg lines 74 75 76 % is used in lines 78 79 is written out percent.

Reply 1: We appreciate that the Reviewer could provide us with these helpful suggestions. These suggestions are significant to improve our study. we have modified our text as advised (see Page 4, line 72-73).

Changes in the text: The researchers also found that 60% of the children had at least one episode of wheezing by age 6, and at least 40% of those who had wheezing before age 3 still had episodes by age 6.

Comment 2: Was mycoplasma infection status investigated universally? If not has this introduced bias into the data? The rate of viral infection detected seems quite low while mycoplasma is quite high, how was viral infection screened? Was this done for all presenting or just a subset?

Reply 2: We have conducted a general survey of the status of mycoplasma infection in hospitalized patients. The low infection rate of virus and high infection rate of mycoplasma is due to the limitations of the previous pathogen detection methods.

Comment 3: How was the decision made within the cohort to pursue long-term intervention or not? This should be described in great detail as this is key to understanding the study design. Was intervention included as a confounder?

Reply 3: We appreciate that the Reviewer could provide us with these helpful suggestions. These suggestions are significant to improve our study. we have modified our text as advised (see Page 5, line 112-122).

Changes in the text: We categorized continued intervention after discharge into long-term intervention, short-term intervention, and no intervention according to the duration of intervention. Long-term intervention was defined as continuing to receive intervention treatment for ≥4 weeks after discharge, short-term intervention was defined as continuing to receive treatment for ≥1 week and <4 weeks after discharge, and no intervention was defined as no treatment or continuing to receive intervention treatment for < 1 week after discharge. According to the intervention methods, the patients were divided into: (1) Inhaled corticosteroids (ICS) treatment, the method was aerosol inhalation of budesonide suspension, 0.5mg/ time, 2 times/day, and then gradually reduced according to the condition; (2) The Leukotriene receptor antagonist (LTRA) treatment was oral montelukast sodium, 4mg/ time, 1 time/day; (3) ICS combined with LTRA treatment: the dosage was the same as above.

Comment 4: The number of children on each of the alternative treatment regimens should be outlined in 3.2.3 and a characteristic table provided for these groups like in table 1 for recurrent vs non-recurrent wheeze. Without this table the data is difficult to interpret correctly.

Reply 4: We appreciate that the Reviewer could provide us with these helpful suggestions. These suggestions are significant to improve our study. we have modified our text as advised (see Table 4).

Changes in the text: In order to study whether long-term intervention treatment of wheezing after discharge has an effect on the recurrence of wheezing, we used SPSS 25.0 software for multivariate Cox regression statistical analysis. In this study, they were divided into long-term intervention, short-term intervention and no intervention according to the intervention time node. Long-term intervention was defined as continuing intervention for ≥4 weeks after discharge, short-term intervention was defined as receiving short-term treatment for ≥1 week and <4 weeks after discharge, and no treatment or continuing treatment for <1 week after discharge without intervention. Compared with the children without intervention after discharge, the risk of recurrent wheezing after discharge was significantly reduced in the children who received long-term intervention ($P<0.05$) (Figure 3). The children who received only short-term intervention after discharge had a slightly lower risk of recurrent wheezing than those who received no intervention, but the difference was not statistically significant ($P > 0.05$) (Figure 3), suggesting that the risk of recurrent wheezing was similar between the two groups. Intervention methods for different follow-up time in wheezy children post-discharge have been listed (Table 4).