

READERS' FORUM

# Children under 12 months could benefit from a therapeutic trial with bronchodilators if the clinical response is positive

Dear Editor,

We agree with Korppi's view regarding the definition of bronchiolitis (1). It is highly probable that different bronchiolitis definitions include different patient groups that should be assessed and probably treated in different ways. In the United Kingdom, the first 12 months of life are usually used for defining bronchiolitis and inspiratory crackles are the most important finding, while in North America the definition and most important finding are the first 24 months and wheeze. This latter definition is more likely to overlap with atopic asthma or episodic viral wheezing, a separate entity from atopic asthma in which wheezing occurs exclusively in association with a viral infection of the respiratory tract. Therefore, it is probable that infants diagnosed with bronchiolitis based on the North America criteria, rather than the United Kingdom criteria, obtain more benefits from bronchodilators. However, the different definitions do not mean that patients diagnosed according to the United Kingdom criteria cannot benefit from a therapeutic trial with bronchodilators, as there is some evidence that shows the positive effects of albuterol on different surrogate outcomes in infants under 12 months

and even under six months. Two studies have reported a positive effect of albuterol on respiratory system resistance in infants under one year and on respiratory rate, accessory muscle score and wheezing score in infants aged one to six months, when compared with a placebo. Responders and nonresponders could not be differentiated by personal or family histories of atopy and respiratory syncytial virus isolation (2). Furthermore, as stated in our earlier different view letter, it is still not clear whether the reported lack of efficacy of bronchodilators in clinical important outcomes in children under 12 months is at least partly due to the method of administration, namely by a nebuliser or metered-dose inhaler (MDI) and valved holding chamber (3).

We believe that although different bronchiolitis definitions can influence the response to therapy, children under 12 months, and particularly under six months, who have a greater probability of a negative response to bronchodilators, could still benefit from a therapeutic trial with bronchodilators. However, this should only be continued only if there is a documented, positive clinical response to the medication. Clinical trials need to be carried out with different methods of albuterol administration, preferably MDI and a valved holding chamber, in infants with specific bronchiolitis definition, ideally by taking into account the specific respiratory virus and their personal and family atopic conditions.

## References

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