

Pulmonary Disorders 2017: Wheezing in infancy when to treat and why?_Shahid Sheikh_Ohio State University College of Medicine, USA.

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Asthma is a long-term lung disease. This causes inflammation and narrowing of your airways and makes it difficult to breathe. Severe asthma can make it difficult to speak or be active. You might hear your doctor call it as chronic respiratory disease. Some people refer to asthma as "bronchial asthma". Asthma is a common chronic childhood disease. In the United States alone, asthma affects approximately 5 million children, with an estimated annual cost of over \$ 4 billion, and asthma prevalence is increasing. Adoption and adherence to asthma guidelines is still far from optimal. Strategies for improving clinical outcomes depend heavily on the training of primary care physicians. In busy primary care practices, doctors lack the time to educate parents about preventive asthma management plans. It is therefore important that in addition to doctors, other medical personnel such as nurses and nurse practitioners are involved in patient / family education to improve asthma self-management. Once trained, they can help implement preventive clinical management plans, educate patients and their families, and ensure patients are receiving appropriate treatment to achieve adequate asthma control.

We have been working on this model for four years in our establishment and I can share the results and the results. The relationship between silent gastroesophageal reflux disease (GERD) and respiratory problems such as persistent wheezing in infants is not well established. Between January 1994 and June 1997, we assessed the incidence of GERD in 84 otherwise healthy infants referred to the Pediatric Pulmonary Medicine Division at Kosair Children's Hospital for daily

wheezing assessment, and we monitored their clinical course for 18 months. All underwent 24-hour esophageal pH studies to assess GERD. The pH probe study was performed at an average age of 8.74 ± 4.6 months. Infants with a positive GER study were treated with an H2 receptor antagonist (H2RA) and a prokinetic agent for a mean duration of 5.6 ± 2.4 months. At the first follow-up visit 3 weeks after the oesophageal pH studies, infants treated with H2RA and those who did not have GERD but continued with daily wheezing started with flunisolide nasal solution (0.025%) administered by nebulizer (125 mcg tid).

Infants in both groups were followed every 1 to 2 months for an average of 18 months and, if clinically improved, attempts to decrease their daily asthma medication were made. Fifty-four of 84 (64%) had studies of esophageal pH positive (GER-positive group), and 24 of them (44%) had no gastrointestinal symptoms suggestive of GERD. Thirty patients had studies of normal esophageal pH (GER negative group). Twenty-two of these 30 infants (73%) without GERD required nebulized flunisolide, compared to 13 of 54 infants (24%) with GERD ($P < 0.0005$). Thirty-five of the 54 infants (64.8%) with GERD were able to stop all daily asthma medications within 3 months of starting anti reflux therapy, while none of the infants without GERD were able to stop daily asthma medication during the follow-up period ($P < 0.0005$). We conclude that silent GERD is common in infants who wheeze daily, and that controlling GERD improves morbidity and decreases the need for daily asthma medication