The wheezing child- Is it always asthma?

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Wheezing in infancy and childhood is a common condition; however it is not a single disorder and can be due to causes other than asthma. Not all wheezing is asthma. Wheezing-associated respiratory illnesses in children are often described as asthma, however while most children with asthma show symptoms of wheezing, not all wheezing is related to asthma. Wheezing, coughing and breathlessness are common in young children, and can all be symptoms of conditions other than asthma. Even with all these wheezy children, we still do not know the answers to a number of basic questions. What is the cause and type of the wheezing illness in an individual child? What does it portend for the future of this child? Bronchiolitis refers to a first episode of wheezing, with respiratory distress triggered by a viral infection. Episodic wheezing refers to discrete episodes of wheezing without intermittent symptoms. Unremitting wheezing refers to distinct episodes of wheezing with intermittent symptoms, such as coughing or wheezing at night or in response to exercise, crying, laughter, mist, or cold air. Wheezing Phenotype during the first 6 years of life 1. Never wheezers 51.5% 2. Transient early wheezers 19.8% 3. Late wheezers 19.84%. Persistent wheezers 13.7%. Environmental conditions that increase the rate of bacterial and viral infections are risk factors for transient wheezing, but its relationship to asthma remains unclear. Children with frequent simple colds and other common childhood infections in infancy are less likely to develop persistent wheezing in later childhood. Many preschool children with viral induced wheezing will outgrow these symptoms, and do not have asthma. Generally, asthma is identified by the presence of cough, wheeze and breathing difficulty, together with features of atopy (or a family history of atopy or asthma) and impaired lung function evidenced by spirometry. It is important to explain to parents/carers that wheezing in an infant or preschooler does not mean the child will have asthma or allergies by primary school age. In preschool-aged children with recurrent wheeze (e.g. four or more episodes per year), consider using the Asthma Predictive Index, to estimate whether children are likely to have asthma during primary school years. Asthma Prediction Index has some major criteria and minor criteria. Major criteria are diagnosis of asthma in one or both parent, Diagnosis of atopic dermatitis during the first 3 yr of life, Sensitization against >1 allergen, Minor criteria- Milk, egg, or peanut sensitization. Associated with respiratory infections, Eosinophilia >4%. In the first 3 years of life if anyone who have 1 major criteria or 2 minor criteria is present in one episode, the possibility of asthma in 6-13 years is 59% but 2 episodes possibility is 77%. Investigation -Chest X-Ray, spirometry, CT scan of Chest and Fiber-optic Bronchoscope. It is usually not necessary if history of "classic" asthma or, patient response to salbutamol and or steroid; then only spirometry should be done. But need other investigation when Chronic cough (>1 month), recurrent pneumonia, persistent signs or symptoms are seen despite therapy.