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### **Irrational Combination of Montelukast and Bambuterol for Management of Childhood Asthma**

Recently, many of the leading pharmaceutical companies have started marketing a combination of montelukast and bambuterol for management of childhood asthma. Montelukast is a Cys-leukotriene receptor antagonist. It has been proven to have a role in management of mild persistent asthma(1). However, recent trials have found it be either inferior to inhaled low dose fluticasone or not-inferior (equivalent) to fluticasone(2). Based on the available data, the current consensus guidelines from various professional bodies(3), montelukast is listed as an alternative to low dose inhaled steroids. It is also recommended as an add-on to inhaled steroids in moderate persistent asthma even though there is data to suggest inferiority to combination of inhaled corticosteroids and inhaled long acting beta-agonists(4). The recently updated guidelines from the British Thoracic Society(5) clearly mention inhaled corticosteroids as the first choice preventer drug.

Bambuterol is a bis-dimethylcarbamate prodrug of terbutaline that releases terbutaline into blood over a sustained period. In this respect, it is different from long acting beta agonists like salmeterol or formoterol. The drug has been demonstrated to have benefit in noc-

turnal symptoms(6). However, the drug does not find mention in any of the standard treatment guidelines.

Since montelukast has been recommended as an alternative therapy in mild persistent asthma, we can presume the combination of montelukast and bambuterol is targeted for therapy of moderate persistent asthma.

Montelukast with long acting beta agonists are not recommended for use in asthma (BTS). There are no published studies evaluating the combination. With the above discussion it is clear that this combination will be inferior to inhaled corticosteroids and long acting beta agonists.

Even though the combination has an advantage of oral administration, should we accept this as therapy for moderate persistent asthma? It is desirable that the regulatory authorities carefully review the available evidence before permission is granted for marketing such irrational combination.

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## Ring Chromosome 14 with Epilepsy and Development Delay

We present a 2-year-old girl, the first child born to young, healthy and non-consanguineous parents. At the age of 15 months she had seizures confirmed by EEG as epilepsy. CT scan of brain was normal. At 17

months baby's weight was 7.9 Kg, length 67 cm, skull circumference 42 cm that are below 5th percentile. She also had elongated face with high forehead, downturned corner of the mouth, long philtrum, staring look with squint eyes, absence of retinal pigmentation and hypotonia. Cytogenetic investigation of the proband revealed 46,XX,r(14)(p11.2q32.3). (Fig.1).



Fig. 1. Metaphase of the proband showing 46,XX,r(14)(p11.2q32.3).