The effectiveness of Inhaled Steroids as First-Line Therapy in the Treatment of Newly Detected Asthma in the Open Population

**Aim:**

To evaluate the efficacy of a double-blind, placebo-controlled trial. All patients had been detected by means of a screening procedure in 155 randomly selected persons out of 10 general practices. They complied to the following inclusion criteria for the trial (objective asthma criteria): PC_{inh} histamine < 2 mg/ml combined with a reversibility of the airway obstruction (more than 15% and > 200 ml) to bronchodilator and no prior diagnosis of asthma.

**Method:**

54 Adult asthma patients were selected for participation in a randomized, double-blind, placebo-controlled trial. All patients had been detected by means of a screening procedure. They complied to the following inclusion criteria for the trial (objective asthma criteria): PC_{inh} histamine < 2 mg/ml combined with a reversibility of the airway obstruction (more than 15% and > 200 ml) to bronchodilator and no prior diagnosis of asthma.

**Design:**

Aerosol deposition to the lungs of intubated patients is usually less than 10% when using a conventional nebulizer in the ventilator circuit (Crit Care Med 13: 81, 1985). We have recently developed a novel nasal nebulizer (OD) design catheter (Trudell Medical, London, Canada) which can be placed directly in the airways and produce an aerosol at its tip. Since the upper airway (and endotracheal tube) are bypassed by this catheter, optimal particle sizing for lung deposition might be different than that expected for conventional aerosol generators external to the patient. To predict aerosol deposition in the lung from this catheter when positioned just above the carina, we developed a computer model of the lung based upon the morphometric data of Weibel. Ventilatory parameters were tidal volume 900 ml, inspiratory and expiratory time of 3 sec each, and a constant inspiratory flow pattern. Data was generated for particle sizes of 2.5, 5, and 10 micron MMD. Deposition was calculated as a function of total aerosol generated.

**Conclusion:**

A dry powder inhaler such as Turbuhaler can be used in acute asthma. Half the dose of salbutamol via Turbuhaler was as effective as the full dose given via MDI with spacer.

**Aim:**

To evaluate the efficacy of a dry powder inhaler, salbutamol Turbuhaler, in patients with acute bronchial obstruction attending the emergency room.

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