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EFFECTIVENESS OF NEBULIZED ADRENALINE PLUS INTRAMUSCULAR DEXAMETHASONE, VERSUS NEBULIZED ADRENALINE PLUS BUDESONIDE IN THE MANAGEMENT OF CROUP

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In the present study we evaluated the effectiveness of 5ml nebulized normal saline (NS), 5ml nebulized L-adrenaline (1:1000) plus 0.6mg/Kgr dexamethasone (AD), and 5ml nebulized L-adrenaline plus 2ml nebulized budesonide (0.5mg/ml) (AB) in 36 infants and children with croup. Their condition was characterized as mild, moderate or severe, according to a score based on stridor, cough, intercostal retractions, cyanosis and SaO_2 saturation. All the children were initially given NS. Twenty three of them with similar croup scores who didn't show any improvement 15' minutes after NS, were subsequently divided into two random groups: The first group received AD and the second was treated with AB. The croup score was evaluated at 5', 15', 30', 60', 120' and 180' minutes later. Two patients from group AB were excluded from the analysis. Our results showed that: a) 85% (11/13) of patients who received AD and 100% (8/8) of the ones who received AB, had a significant improvement 30' minutes after treatment and b) 77% (10/13) of the AD group and 62.5% (5/8) of the AB group remained symptoms free, three hours later. In conclusion, it seems that there is no difference between the two treatment regimes AD or AB, though more patients are needed to confirm this finding.

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METHACHOLINE DOSE-RESPONSE CURVES BEFORE AND DURING TREATMENT WITH SALMETEROL IN MILD ASTHMATIC CHILDREN.

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The long-term effects of long-acting beta-2-agonists on the airway sensitivity and maximal bronchoconstriction in asthmatic children have not been evaluated. We compared the effect of salmeterol 50 µg and salbutamol 200 µg bid. in 30 mild asthmatic children in a double-blind parallel study. None of the children were on inhaled corticosteroids. Methacholine dose-response curves were made up to a fall in FEV₁ of 45% or a maximal plateau bronchoconstriction was reached, before and during 4 months of treatment. PD₅₀ was always measured 12h after the last medication gift. PD₅₀ improved significantly only during salmeterol treatment: 0.7 doubling dose in the salmeterol group, -0.5 doubling dose in the salbutamol group (p<0.001). Maximal plateau bronchoconstriction was rarely seen, either before or during treatment. We conclude that salmeterol during long-term treatment improves airway sensitivity, but we could not demonstrate a maximal response plateau.

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POOR PROGNOSIS AFTER PROLONGED VENTILATION FOR BRONCHOPULMONARY DYSPLASIA.

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We have investigated mortality and neurodevelopmental morbidity among children ventilated for more than 28 days in the years between 1985 and 1992. There were 48 cases: 30 were male. 16 were <1500g birthweight, and the VLBW group represented 5% of VLBW admitted during this time.

Days vent	Normal	Handicap	Dead	Lost
28-40	7	11	5	2
41-50	1	4	5	1
>50	0	2	10	0

Using regression analysis, days of ventilation proved a more powerful predictor of handicap than brain injury. The poor outlook for normal survival after 40 days may prove useful information to clinicians faced with difficult decisions during a deterioration in the condition of such babies.

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CHILDHOOD ASTHMA: PSYCHOLOGICAL EFFECTS OF ABNORMAL SLEEP

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Relationships between asthma, disturbed sleep, and daytime cognition and behaviour were explored. **Stage one:** children, aged 6-16, with nocturnal asthma (NA) (n=10), daytime asthma (DA) (n=10) and healthy controls (HC) (n=10) were compared on the following: sleep quality, daytime sleepiness and behaviour and cognition. **Stage two:** for NA, home polysomnography on the night before the assessments. Two further sleep recordings and assessments at two and four weeks post successful treatment change. **Results:** preliminary results suggest: 1. NA show focal attention, memory and creativity deficits. Higher anxiety and inattention is reported. 2. DA also display focal attention deficits. 3. NA have poor subjective sleep quality and more daytime sleepiness. 4. polysomnography confirms that NA have repeated night waking, the frequency (mean 19.4 (sd 13.1)) per night and duration (mean 34.1 minutes (sd 33.0)) of which diminish after a successful treatment change (mean 2.6 (sd 3.0) and mean 3.0 (sd 4.3) respectively). Slow wave sleep and subjective sleep quality increase. 5. reported anxiety lessens. 6. recall improves. Divergent thinking remains lower than for the control groups. Focal attention, poor in comparison to HC is now comparable to DA. The focal attention deficit in both groups of children with asthma is being investigated. **Conclusion:** initial results suggest sleep disturbance experienced by NA has effects on daytime learning and behaviour, some of which can be reversed by management of the nocturnal symptoms.

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LUNG FUNCTION TESTS IN SHORT STATURE CHILDREN

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The lung function tests (body plethysmography, flow-volume curve parameters, diffusion capacity, static and dynamic lung compliance) were performed in 39 short stature children (12 boys, 17 girls aged 7-17, mean height 126±16 cm). Examined group consisted of 18 children with growth hormone deficiency (GHD) and 21 control children with idiopathic short stature (ISS). The mean values of all examined parameters expressed in absolute values, or as % of predicted (according to height) and as "standardised residuals" were similar in both examined subgroups of children. Only in 3 GHD and in 3 ISS children the disturbances in airway resistance were observed and in 2 GHD and 2 ISS children the diminished diffusion capacity and static lung compliance were found.

We conclude that GHD had no influence on lung function.

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IS ABDOMINAL MIGRAINE MORE COMMON THAN WE SUSPECT?

Recurrent abdominal pain (RAP) is seen in 11% of school children and has been attributed mainly to psychological causes.

We investigated 42 children (age 3-17) years with RAP. Each patient received a range of serum immunological investigations, tests of lactose tolerance and small bowel biopsy. Abdominal migraine (AM) was the most common cause (57%) of RAP. Psychological factors accounted for only 17% of the cases. Combined cephalic and abdominal migraine was observed in 10% of cases. Less common aetiologies included constipation (7%), lactose intolerance (5%), cow's milk protein intolerance (2%) and Irritable Bowel Syndrome (2%).

Clinical studies demonstrated that allergens in the AM group included citrus fruits/drinks, cheeses (solid), chocolate and caffeine containing drinks.

A therapeutic trial based on eliminating the provoking foods and drinks achieved symptomatic improvement in 33% of those who complied with the antimigraine diet.

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