Trends

Clonidine in short stature

Clonidine is a potent growth hormone (GH) secretagogue in both animal and man, and it acts via release of growth hormone releasing hormone (GHRH). Administration of GHRH evokes a GH response in most GH-deficient children and in children with constitutional growth delay.

Pinto et al. [1] have shown that oral administration of clonidine to children with constitutional growth delay promotes linear growth of more than 2 cm/year in 21 out of 34 children during 6 months, and in 13 out of 22 children during 12 months of treatment. The increment of height velocity was maintained. Withdrawal of clonidine showed persistence of the stimulatory effect of the drug on height velocity in some children, perhaps indicating that short-term clonidine treatment is useful in such cases. Some clinical features appear useful in identifying those children with constitutional growth delay who will respond to clonidine: the responders had a clearly higher height standard deviation score and low growth velocity and a greater (though not significant) delay in bone age than did non-responders. None of the children had noticeable side-effects during treatment. A longer follow-up study is needed to determine the beneficial effect of this therapy on adult height.

In prepubertal and pubertal patients with short stature (21 constitutional growth deficient- and 9 GH-deficient patients), clonidine has been tried in low doses to evaluate GH responses in comparison with insulin-induced hypoglycaemia. Batista et al. [2] point out that clonidine at an orally administered dose of only 0.0375 mg/m² is a reliable and safe GH-releasing agent in younger children. However, in adolescents the authors suggest that the test be performed with the originally recommended dose of 0.15 mg/m².

References


New approaches in cystic fibrosis

Availability of prenatal diagnosis would substantially increase the reproductive options for couples with an affected child. Beaudet and Buffone comment this aspect [1]. It is already established that the activity of numerous microvillous intestinal enzymes in amniotic fluid is reduced in pregnancies affected by cystic fibrosis (CF). The combined experience of 8 laboratories suggests a false positive rate of 1% to 4%, and a false negative rate of 6% to 8%. On the other hand, DNA analysis nowadays does not present any diagnostic errors, and Dean et al. [2] conclude that DNA-based prediction of cystic fibrosis is an effective clinical diagnostic procedure. The authors have identified 3 new restriction fragment length polymorphisms (RFLP) tightly linked to the CF locus, and have shown that these RFLP increase the percentage of families eligible for prenatal diagnosis. According to Farrall et al. [3] the major advantages of RLPF diagnoses
are the potential for increased accuracy and earlier detection of the disease at 9 to 11 weeks of gestation. The recent report by Estivill et al. [4] suggests that numerous changes in prenatal diagnosis and heterozygote detection for CF are likely in the immediate future. This group has cloned an expressed DNA sequence that may prove to be the CF gene.

Concerning energy expenditure in patients with CF, Vaisman et al. [5] point out that the correlation between pulmonary function and resting energy expenditure (REE) probably reflect the increased energy cost of breathing related to high resistive and elastic loading of the respiratory system, and increased ventilatory requirements related to enlarged physiological dead space and hypoxaemia. A negative correlation was found between REE and measurements of body fat. The loss of body fat may result from increased energy needs related to chronic lung infection.

The effect of taurine supplementation on fat absorption and growth in CF studied by Thompson et al. [6] does not demonstrate changes in the parameters, and in consequence the authors do not support the use of taurine supplementation in the nutritional management of CF. Likewise, the addition of aerosol aminoglycoside to systemic antipseudomonal combination therapy is not clinically beneficial according to the trial conducted by Schaad et al. [7].

References


We have been pleased to learn that the University of Guadalajara, Mexico, has conferred a honorary doctorate on Professor Ettore Rossi, honorary director of the Paediatric Clinic of the University of Berne, Switzerland.