

### **Prenatal Diagnosis of Down's Syndrome: Use of the Circus Dwarf Sign**

We have earlier recorded(1) our observation that newborns with Down's Syndrome have short limbs. As this shortening was more in the distal segment of the limb, it seemed to point to intra-uterine retardation in the normal cephalo caudal growth. Projecting this backwards, we felt that, *in-utero*, ultrasonographic measurements of the ratio upper arm to lower arm length, the femoral to tibia length ratio and the ratio of forearm length to trunk length may provide a non-invasive tool in the prenatal diagnosis of Down's Syndrome. Professor John C. Hobbins of Yale University (personal communication) has now confirmed that our observations in newborns has been strongly validated in fetuses at 18 to 20 weeks of gestation.

To date we have found short limbs in 11 of 12 newborns with Down's Syndrome. Intra-uterine measurements will, therefore, yield a predictability of over 91%. This compares favourably with other non-invasive techniques like the measurement of lowered maternal serum alpha-feto proteins in 33% of patients with Down's Syndrome. Levels of human chorionic gonadotrophin have been found to be elevated in patients whose fetuses have Down's Syndrome. A screening protocol based on maternal age, weight, maternal serum alpha-feto protein and human chorionic gonadotrophin levels has achieved a yield of 60%.

Larger studies will be needed to detect the sensitivity of this test of limb length ratios to find the percentage of false positive cases picked up by such criteria.

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#### **REFERENCE**

1. Puliyl JM, Nair LT. The Circus Dwarf—A new sign for early diagnosis of Down's Syndrome. *Indian Pediatr* 1989, 26: 1062-1063.

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### **Abuse of Betamethasone Drops**

We wish to highlight the unwarranted abuse of Betamethasone drops as a remedy for running nose (colds) in infants. We have seen about twenty cases wherein these drops were prescribed by practitioners for such trivial complaints, usually in the neonatal period. The drug was then continued by the mother over several months by purchasing it as "over the counter" medicine without further prescription.

The infant acquires a chubby look, not unlike a cushingoid facies and this probably is interpreted as a sign of health by the mother. Additionally the child is pale, has poor activity and alertness. The quiet undemanding behaviour further augments the mothers expectations and the vicious cycle continues.

Such infants are often brought for a genuine respiratory infection, before 6 months age or are picked up during immunization contact. One infant was referred from Primary Health Centre as a case of adrenogenital syndrome.

We wish such prescriptions be banned and over the counter sale stopped. Awareness of this adverse effect will help. Any action in this connection from the consumer protection cell of Indian Academy of Pediatrics will be welcome.

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## Nutrition Disc

Amongst all approaches for preventing and combating malnutrition, nutrition education is an important one. Ignorance about nutritive values of foods, at times, leads to spending of limited money on the prestigious foods, which are not cost effective sources of calories and protein. Expensive foods like apples, grapes, almonds, cashew nuts, sweet lemons, which are in no way nutritionally superior to cereals and pulses, often get priority for consumption in the family. An attempt has been made by developing a 'self learning package' entitled Nutrition Disc of India (NDI) to overcome this bottleneck. NDI is a simple device which serves as a ready

reckoner for understanding and calculating the nutritive value of 144 foods commonly consumed in the Indian families. It helps in scientific selection of foods for the formulation of balanced diets. The information on nutritive value of foods is available in different text books, which are frequently not readily available for reference purposes to health and nutrition programmes functionaries.

NDI is made of thick card board, portable and easy to operate. By adjusting the name of food on the respective window of the disc, the nutritional content of 144 food items like milk, fish, prawn, egg in terms of calories, protein, vitamins and minerals can be calculated.

The NDI is primarily meant for Pediatricians, Nutritionists, Public Health Specialists and Programme Manager of Supplementary Nutrition Programmes. It can also be used by postgraduates in Pediatrics, Community medicine, Home Science, Practicing Physicians, Health Planners and Administrators and Agricultural Scientists in developing countries. Its simplicity enables it to be used beneficially by all nutrition and health conscious individuals.

NDI gives nutritive values in terms of calories, proteins, vitamins and mineral of foods. The envelope of disc provides information on role of different nutrients in body, household measures and their weight equivalents, important nutrition education messages, measurement of raw quantities from cooked foods, cost of nutrients from vegetarian and non vegetarian foods (*Fig.*).

A pilot study was conducted on 56 Nursing students. All of them were able to