

whom modified Rubner's test was positive and clinical features were suggestive of secondary lactose intolerance diarrhea, the response to lactose free diet alone was excellent.

Modified Rubner's test in stool has been applied in clinical setting for the first time to diagnose secondary lactose intolerance diarrhea. The test seems to be specific and sensitive as compared to pH and Benedict's test, and is also simple and economical. The initial results are encouraging, but further studies are needed, before it can be utilized as a routine test.

**B.D. Gupta,
R. Singh,
A.K. Arora,
S. Agarwal**

*Department of Pediatrics,
Regional Institute of Maternal and
Child Health,
Dr. S.N. Medical College,
Jodhpur.*

REFERENCES

1. Udani PM, Bhat U, Panwalkar RS. Sugar intolerance in diarrhea. *Indian Pediatr* 1976, 13: 78-81.
2. Srivastava UK, Anand UK, Murthy PS, Prabhu KM. Sugar intolerance in acute gastroenteritis in infancy and childhood. *Indian Pediatr* 1984, 21: 485-489.
3. Ransome Kutty O. Lactose intolerance — A review. *Post Grad Med Jour* 1977, 53: 73-87.
4. Ghai OP, Bhan MK, Arora NK, Dhamija NK. Practical implication of milk intolerance in diarrhea. *Indian Pediatr* 1982, 19: 89-93.
5. Ansari Z, Malik AS, Dutta AK, Ahmed SH, Sajahuddin. Prevalence of sugar intolerance diarrhea of infancy and childhood. *Indian Pediatr* 1979, 16: 879-885.

6. Joseph MV. Transient sugar intolerance in diarrhea with special reference to diagnostic methods including chromatography. *Indian Pediatr* 1976, 13: 267-271.
7. Chaudhary SK, Gupta R, Gupta BD. Rubner's test for lactose in urine applied for lactose in stool. *J Assoc Phys India* 1985, 33: 104-105.

Biliary Atresia: Need for an "Indian Effort"

The prognosis for infants with biliary atresia in India remains dismal. It is unfortunate that 23 years after Morio Kasai first reported success with his portoenterostomy operation, our patients should still not benefit from the same. This is primarily because the majority of infants with biliary atresia in India are referred too late to be able to benefit from this operation.

Early surgery (before 8 weeks) can relieve jaundice in almost 80% of cases of biliary atresia(1,2). Recent reports have also shown that such infants are not only capable of long-term survival but can lead a normal and good quality life(1,3).

All the 8 cases referred to us in the last 8 months were more than 2½ months old. A careful record of their histories revealed that the delay occurs at two levels, as indicated by the long jaundice-doctor interval and the long doctor-surgeon interval. The reason for the delay at the first level is probably because of the total ignorance and misconceptions of parents, relatives, dais/midwives and other health visitors regarding physiological and non-physiological causes of jaundice. Occasionally second level delay also occurs, when the general practitioner or child-specialist spends an

enormous amount of time in investigating the infant for excluding other genetic, infective and endocrine causes of conjugated hyperbilirubinemia.

In Japan in the '60s and '70s many patients were being referred too late and results were not as good as they are today. It is then that a sustained campaign was launched in that country to educate parents, health workers, doctors and the public in general about various aspects of treatable hepato-biliary disorders. Similar measures are also necessary in our country for improving our results in biliary atresia. We suggest:

1. Inclusion of "Neonatal Jaundice with particular reference to Biliary Atresia" in all Maternal and Child Health Programmes.
2. Launching of a media and poster campaign aimed at patients, health workers and family practitioners to increase the awareness on this issue, and stressing the importance of prolonged jaundice in the newborn (beyond the first 15 days), yellow urine and white stools as signs of a treatable hepatobiliary disorders.

3. Maintenance of a 'National Biliary Atresia Registry' on the lines of the Registry established in 1976 by the Surgical Section of the American Academy of Pediatrics.

S.J. Karmarkar,
S.N. Oak,

R.H. Ramadwar,
S.S. Deshmukh,

*Department of Pediatric Surgery,
LTMG Hospital and
Medical College,
Sion,
Bombay 400 022.*

REFERENCES

1. Ohi R, Nio M, Chiba T, *et al.* Long term follow up for patients with biliary atresia. *J Pediatr Surg* 1990, 25: 442-445.
2. Mieli-Vergani, Howard ER, Portmann B, Mowat AP. Late referral for biliary atresia—Missed opportunities for effective surgery. *Lancet* 1989, i: 421-423.
3. Raffensperger JG. A long term follow up of 3 patients with biliary atresia. *J Pediatr Surg* 1991, 26: 176-177.