Register' since 1982 onwards. The annual incidence of branding is shown in *Table I*. A cursory analysis in the first year of registry showed that this inhuman practice was prevalent in rural areas among illiterate people having superstitions for minor problems in children such as abdominal colics, bronchopneumonia, hydrocele, general ill health and failure to thrive. Since 1982, we have had 3 deaths due to the complications following branding and 18 cases who survived due to intensive care had septicemia. One female neonate having hydrocolpos developed septicemia following branding and had pyocolpos(2).

Table I shows a progressive decrease in the incidence of branding cases following various measures described below.

(1) *Public health education:* Through local, regional and national newspapers and magazines, radio talks and television interviews.

(2) *Provision of better health services:* Vaccination programmes and other child welfare programmes were intensified in the regions from where more cases were coming. The Primary Health Centre's Medical Officers and Paramedical staff including field workers are encouraged to be aware of the branding practice in their villages and they must also report the same to higher authorities.

(3) *Social and political resources:* Village heads, school teachers, religious leaders and volunteer services were educated to explain to branders to give up branding and increase public awareness to discourage this practice by various social and political sanctions against them.

(4) *Administrative and judicial actions:* Branding is a criminal offence under Indian Penal Code-324. Our hospital had filed 3 court cases of deaths in whom the Judicial Magistrate had ordered a police inquiry and conducted the court trial.

TABLE I—*Incidence of Neonatal Branding*

Calender year	Number of cases
1982	96
1983	74
1984	58
1985	25
1986	36
1987	14
1988	18
1989	17
1990	16
1991	17

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Modified Rubner's Test: Diagnosis of Secondary Lactose Intolerance Diarrhea

Transient carbohydrate intolerance, especially lactose, is emerging as an important cause of diarrhea, particularly in children below 2 years of age(1,2). No simple and reliable diagnostic laboratory method is presently available for the accurate diag-

nosis of lactose intolerance. The available tests are either nonspecific (pH and Benedict's test) or cumbersome and time consuming, *viz.*, stool, chromatography, breath, hydrogen test and sugar loading tests.

In 1982, we were concerned about diagnosis of secondary lactose intolerance diarrhea, since reliability and specificity of pH and Benedict's test have been questioned from time to time(3-6). After repeated discussions, we applied Rubner's tests for lactose in urine for detection of lactose in stool on an experimental basis(7).

With encouraging results we applied the test with some modification in clinical practice for diagnosis of secondary lactose intolerance diarrhea and compared its efficacy with that of pH and Benedict's test.

3-5 ml of liquid stool was taken in a clean test tube. To it was added 0.3 to 0.5 g (a pinch of two fingers) of lead acetate (care should be taken not to add lead acetate more than 0.5 as excess of lead acetate will lead to false negative results). The solution was boiled for 2-4 min and then cooled and 2-3 ml of strong liquid ammonia was added. It was again boiled for 2-4 min and then allowed to stand for 5-10 min. A pink or brick red precipitate showed lactose in stool, while white, yellowish or dirty white precipitate showed negative results. If the test was negative, 2-3 ml of strong ammonia solution was again added and the solution boiled for 2-4 min. After allowing resultant solution to stand for 5-10 min the color of the precipitate was again observed (modification of original Rubner's test). If the precipitate became pink or brick red, the test was read as positive, while if there was no change in color of precipitate, the test was taken as negative indicating absence of lactose in stool.

The current study was carried out in 40 randomly selected patients of secondary lactose intolerance diarrhea due to various causes (Rubner's test negative)–control group, admitted in children ward, Umaid Hospital for Women and Children, Jodhpur. Stool examination of these patients was also done for pH and Benedict's test.

A total of 82.5% cases of study group were of age 0-1 years as compared to 55.0% cases of control group; 17.5% cases and 15.0% cases of study and control groups, respectively belonged to 1-2 years of age. A total 97.5% of patients of both groups had diarrhea of less than 15 days duration. 30.0 and 22.5% patients of study and control groups, respectively were receiving breast milk alone, while 47.5 and 25.0% cases in two groups, respectively were fed with top milk in addition to breast milk.

For pH, a cut off point was taken, *i.e.,* pH equal to or less than 5.5 was considered to be indicative of secondary lactose intolerance. Twenty six patients (65.0%) of study group had pH $\leq$5.5, but on the other hand, 2 patients (5.0%) of control group also had pH value $\leq$5.5. Therefore, it was clear that sensitivity of pH $\leq$5.5 for the diagnosis of secondary lactose intolerance diarrhea was 65.0% while the specificity was 95%.

Presence of reducing substance (0.5 g% or more, *i.e.,* positive Benedict's test) has been taken as a criteria for sugar intolerance. Benedict's test was positive in all the 40 patients (100%) of study group. However, 9 cases of control group (22.5%) also had positive results with Benedict's test. Hence, a sensitivity of 100% and specificity of 77.5% could be achieved, if Benedict's test positivity was taken as criteria for diagnosis of secondary lactose intolerance.

Furthermore, in all the patients in

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.

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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 atresis(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