

case reported by Kamala, *et al.*(3) palatal paralysis was seen on the seventeenth day of illness. The other common causes of palatal paralysis including poliomyelitis and diphtheria were excluded in this case. In view of the emergence of multidrug resistant enteric fever with various complications, we suggest that typhoid fever should be considered in the differential diagnosis of palatal palsy in a febrile child.

**J.B. Ghosh,  
Swapan Senapati,**  
*Department of Pediatrics,  
B.S. Medical College, Hospital,  
Bankura.*

#### REFERENCES

1. Feigin RD. Typhoid fever. *In: Nelson Text Book of Pediatrics*, 13th edn. Eds. Nelson WE, Behrman RE, Vaughan VC, Philadelphia, WB. Saunders Co, 1987, pp 602-604.
2. Suri S, Bhasin A, Srivastava VK. *Salmonella typhi* meningitis with facial nerve palsy. *Indian Pediatr* 1992, 29: 901-902.
3. Kamala CS, Manimegalai S, Kumar S. Palatal paralysis in enteric fever. *Indian Pediatr* 1991, 28: 1213-1215.
4. Seragg J, Rubridge C, Wallace HL. Typhoid fever in African and Indian children in Durban. *Arch dis Child* 1969. 44: 18-28.

### Knowledge, Attitude and Practice of Health Workers in Immunization

Immunization is an important cost effective strategy for child survival. Health workers are grass root agencies in immunization for rural as well as urban population. Inadequate management of cold chain, incorrect administration and dose may reduce the potency of vaccines and lead to adverse effects also. In order to assess the knowledge, attitude and practice regarding immunization, we interviewed 306 health

workers (260 female and 146 male) of Nagaur district in Rajasthan. Two hundred and four (66.6%) were having secondary, 69 (22.5%) higher secondary and 33 (10.7%) graduation as basic qualification with 18 months pre-job health worker training. Information was sought in the questionnaire about the place of storage of vaccines, method of storing vaccine in the refrigerator, method of carrying vaccines in the field, days of using the same vaccine bulk, what is done with the frozen diphtheria, pertussis, tetanus (DPT) and oral polio vaccine, dose of vaccine, route of administration, and age of vaccination.

In the analysis, persons who answered all the questions correctly were tabulated in the fully correct answer group, who answered correctly for more than two vaccines were tabulated as "partially correct" answer and those who gave wrong or no answer were tabulated as "no knowledge group".

**TABLE I-Knowledge of Immunization in Health Workers**

Basic qualifications	No.	Fully correct	Partially correct	No knowledge
Secondary	204	48 (23.5)	83 (40.6)	73 (35.7)
Higher Secondary	69	23 (33.3)	34 (49.2)	12 (17.3)
Graduate	33	15 (45.4)	13 (39.3)	05 (15.15)
Total	306	86 (28.1)	130 (42.4)	90 (29.4)

Figures in parentheses indicate percentages.

It is evident from *Table I* that knowledge of health workers increased with higher basic qualification. Proper intermittent reorientation training and periodic reassessment for all health workers is necessary for successful immunization programme. The possibility of raising the minimum

eligible qualification for health workers training should also be looked for.

**Amrit Bairwa,  
K.C. Meena,  
P.P. Gupta,**

*Department of Pediatrics,  
Medical College, Kota, Rajasthan.*

### Waugh's Syndrome

A 7-month-old male infant presented with a two week history of bloody diarrhea, abdominal distension and occasional bilious vomiting. Intussusception was clinically suspected. At operation, an ileo-cecocolic intussusception was seen which could be partially reduced. Limited resection of terminal ileum was required for gangrene of the same. No 'lead point' was seen. It was also appreciated that the ascending colon was on a long mesentery and the cecum was lying in the subhepatic position.

Ladd's bands were seen coursing over the duodenum which was minimally dilated. Ladd's procedure along with appendectomy was also performed. The infant made an uneventful recovery.

The lack of normal rotation and fixation of the intestine may be an important factor in the etiology of 'idiopathic intussusception' of infants. Brereton *et al.* found an unfixed cecum attached to the posterior abdominal wall by way of mesentery in all of 41 infants undergoing operative treatment for 'idiopathic intussusception'(1). We suggest that the infants with unfixed cecum are more vulnerable to have 'idiopathic intussusception'. In fact, Waught was first to describe this association as early as