

syndrome on the basis of absence of influenza and chickenpox reveals the confusion in the minds of some doctors. But if it persists after reading the viewpoint paper, the conclusion that it had not been read carefully is inevitable.

Dr. Rao has written that I had “described all these cases were due to epidemics of Reye’s syndrome”. I am at a loss to understand how someone could miss the statement in my paper—“In summary, different diseases of children affecting the brain and sensorium and causing death were clubbed together on account of the fact that they occurred in the same time period of May to

July, assuming that all of them represented one epidemic”. I have not concluded that all cases in children with brain disease were due to Reye’s syndrome. If Dr. Rao concluded that all cases he had seen were due to encephalitis, he has not presented sufficient evidence to justify that conclusion. The scientific world needs evidence to accept conclusions, not mere opinions. Publication in a prestigious journal (like Indian Pediatrics) should not be taken to mean automatic acceptance by the scientific world. This applies equally to my viewpoint and Dr. Rao’s Letter to the Editor.

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### **Extended Spectrum of $\beta$ -Lactamase Mediated Resistance to Third Generation Cephalosporins Among *Klebsiellae pneumoniae* in Neonatal Septicemia**

Neonatal septicemia is caused by variety of bacterial specie(1), of which *Klebsiella pneumoniae* is the predominant organism. Several out breaks of infection caused by *K. pneumoniae* isolates that are simultaneously resistant to broad-spectrum cephalosporins and aminoglycosides have been reported. Some of these multidrug resistant isolates produce “Extended Spectrum  $\beta$ -Lactamases” (ESbLs) that are able to hydrolyze expanded spectrum cephalosporins (e.g., ceftriaxone, cefotaxime and ceftazidime) aztonam, and related oxyamino- $\beta$ -lactams(2,3). Studies carried out in various part of India have reported prevalence of ESbL producing *klebsiella* isolates (3,4). The present study was

conducted with an objective to examine the incidence of ESbL producing strains and multidrug resistant strains of *K. pneumoniae* isolated from 828 cases neonatal septicemia from various neonatal care unit hospitals in Gulbarga.

Out of 828 cases studied, growth of bacteria was obtained in 346 (41.78%) blood samples. The most predominant organism was *K. pneumoniae* 96 (27.74%), followed by staphylococcus aureus 78 (22.54%), coagulase negative *S. aureus* (18.78%), *E. coli* 48 (13.87%) and other less frequent isolates. Antimicrobial susceptibility testing and double disk diffusion synergy testing was done to detect ESbL on all 96 isolates. *Table I* shows antibiotic resistance pattern of *K.pneumonia* isolates. All the 96 isolates were found to be resistant to a minimum of 3 antibiotics, hence these were considered multidrug resistant. 87.5% of the isolates showed resistance or decreased susceptibility to at least one of the 3GC and 64.6% to all the 3GC. All the isolates were found sensitive to

**TABLE I**—Antibiotic Resistance Pattern of 96 *Klebsiella Pneumoniae* Isolates

Antibiotic ( $\mu$ g)	Sensitive		Resistance	
	No.	Per cent	No.	Per cent
Ampicillin (30)	01	1.04	95	98.95
Amikacin (10)	08	8.33	88	91.66
Ceftazidime (30)	34	35.14	62	64.59
Ceftriaxone (30)	08	8.33	88	91.66
Cefotaxime (30)	12	12.50	84	87.50
Cefuroxime (30)	19	19.79	77	80.20
Co-trimoxazole (30)	16	16.66	80	83.33
Cefhaloridine (30)	07	7.29	89	92.70
Gentamicin (10)	15	15.62	81	84.37
Imipenem (30)	96	100.00	00	0.00

imipenem. ESbL production was detected in 13 isolates against ceftazidime, ceftriaxone and cefotaxime, and this ESbL production and resistance to the 3GC was transferred to the recipient *E. coli* K12J62-2 strain (obtained from CMC, Vellore).

ESbL mediated resistance to 3GC was found in 13.54% of our isolates. During the past decade, ESbL producing *K.pneumoniae* have emerged as one of multidrug resistant organism(3). The incidence of ESbL producing *Klebsiella* isolates in the United States has been reported to be 5%, in France and England 14-16%, from different clinical specimens(4,5). There are few reports available from India in which ESbL positively in various specimen ranges from 6.6-53%(2,3). However, the percentage of 3GC resistant strains may be much higher, because the conventional disc diffusion criteria used in the routine laboratory underestimate the incidence of these isolates. There are no reports available in India to compare the incidence of ESbL producing strains from neonatal septicemia.

In our study, ESbL production in all the 13 isolates were co-transferred to *E.coli* indicating plasmid mediated ESbL production(5). These conjugative plasmid responsible for the dissemination of resistance to other members of gram negative bacteria in hospitals and in the community. In addition to resistance to 3GC 91.66% of the isolates showed resistance to amikacin, 84.37% to gentamicin and 83.33% to cotrimoxazole. In this study, resistance to 3GC was found to co-exist with resistance to other antibiotics. Since all the isolates showed multidrug resistance, the therapeutic strategies to control infections due to *Klebsiella* has to be carefully formulated.

Approximately 30% of the ESbL producers appear falsely sensitive or moderately sensitive to 3GC in routine susceptibility testing. It is known that the minimum inhibitory concentration (MIC) for ESbL producing organisms is higher than that for non-ESbL producers of the same species. However, the MIC may not reach the breakpoint values for resistance and is thus

reported as sensitive in routine disk diffusion susceptibility test(6).

The present study highlights the incidence of ESbL producing *Klebsiella* isolates among neonates in Gulbarga. Patients with septicemia due to these isolates are unlikely to respond to the penicillins, cephalosporins and aztreonam, since these organisms may not appear resistant to these antimicrobial agents by conventional disc diffusion criteria. Hence, microbiology laboratories should look for ESbL production routinely and explicitly report their presence in order to avoid the undesired effects of multidrug resistance and also appropriate therapy can be instituted.

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### Chronic Vomitting - Impacted Foreign Body in Lower Esophagus

Foreign body ingestion in children is a known health hazard. A 3-year-old boy with recurrent daily vomiting for the past 2 years, associated with dysphagia for the last one year was referred to our hospital. Vomiting was non-projectile and contained ingested foods without bile or blood. The child could accept only

liquids taken in slow sips in recumbent position. Examination revealed a pale (hemoglobi-75 g/dL), poorly thriving child with Grade 3 protein energy malnutrition and bitot spots. Fundus examination, renal function tests, liver function tests and X ray chest were normal. Conservative management with prokinetic agents and fluids was initiated. Barium swallow revealed a filling defect at the lower end of esophagus. Subsequent esophagoscopy (*Fig. 1*) showed a fruit of *Zizuphus jujuba* (Indian Plum) impacted against lower esophagus. Dormia basket