

- plications in bacterial meningitis. *Indian Pediatr* 1996; 33: 373-376.
4. Kaul A, Chandwani S., Dexamethasone in bacterial meningitis: To use or not to use? *Indian J Pediatr* 1996; 63: 583-589.
 5. Amdekar YK. Pathogenesis and management of bacterial meningitis. *IAP J Practical Pediatr* 1996; 4: 287-289.

Reply

We appreciate the interest in our articles(1) and would like to clarify the queries raised in the letter.

1. **CRP** is mentioned as a nonspecific test as it is a nonspecific marker of inflammation and does not help to detect specific bacterial antigen or diagnose the specific causative agent of bacterial meningitis as in the case of latex agglutination or counterimmunoelectrophoresis(2). A few studies have shown CRP to be a diagnostic test for bacterial meningitis(3,4). However, it is occasionally positive in cases of tuberculous meningitis also(3).
2. Rifampicin can be given orally or intravenously in a dose of 10 mg/kg 12 hourly(5). Absorption and peak drug levels are same by both routes. Since intravenous preparation is not available in India, oral preparations can be used. The incidence of resistant pneumococci and their antibiotic sensitivity in Indian population is not known. Most treatment regimen for meningitis due to resistant pneumococci are empirical. Various combination strategies have been employed to treat meningitis due to resistant pneumococci. Some investigators have recommended addition of rifampicin to vancomycin based on experimental data(5). However, currently a combination of vancomycin and third generation cephalosporin is

recommended. Meropenem is another promising drug for resistant pneumococci.

3. The dose of dexamethasone as mentioned in the article(1) is based on various clinical trials(6,7) and recommendations of Committee of Infectious Disease of American Academy of Pediatrics(8). The recommended dexamethasone regimen is 0.6 mg/kg/day in four divided doses given intravenously for the first two days of antibiotic therapy(8).

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REFERENCES

1. Aneja S, Aggarwal A. Acute bacterial meningitis. *Indian Pediatr* 1997; 34: 1097-1109.
2. Maxson S, Lewno MJ, Schutze GE. Clinical usefulness of cerebrospinal fluid bacterial antigen studies. *J Pediatr* 1994; 125: 235-238.
3. Pemde HK, Harish K, Thuran YP, Srivastava S, Belapurkar KM. C reactive protein in childhood meningitis. *Indian J Pediatr* 1996; 63: 73-77.
4. Singh UK, Sinha PK, Suman S, SinghVK. C reactive protein as an indicator of complications in bacterial meningitis. *Indian Pediatr* 1996; 33: 373-376.
5. Rockowitz J, Allan RT. Bacterial meningitis. *Practical Guidelines for management. Drugs* 1995; 24:101-115.

6. Wald ER, Kaplan SL, Manson EO, Sabo D, Ross L, Ardit, *et al.* Dexamethasone therapy for children with bacterial meningitis. *Lancet* 1993; 342: 457-461.
7. Lebel MH, Freij BJ, Syrogiannopoulos GA, Chrane DF, Jean HM, Stewart SM, *et al.* Dexamethasone therapy for bacterial meningitis. Results of two double blind trials. *N Eng J Med* 1988; 319: 964-971.
8. Report of Committee of Infectious Diseases of American Academy of Pediatrics. Dexamethasone therapy for bacterial meningitis in infants and children. American Academy of Pediatrics, Elk Grove Village IL, 1997; pp 620-622.

Umbilical Cord Blood Collection With an Infant Feeding Tube

Hospitalized neonates undergo frequent blood sampling and are commonly exposed to transfusions. About 63% of all neonates weighing < 2000 g require at least one red cell transfusion(1). Medical complications associated with blood transfusions include infections, sensitization to blood components and graft versus host disease.

Placental vessels contain a quarter to a third of cord blood at birth(2) which is now being used for stem cell transfusions in Fanconi's anemia, leukemia, thalassemia major, sickle cell anemia and aplastic anemia. The first premature infant who received autologous cord blood transfusion was reported by Ballin *et al.*(2). We report an indigenously developed cord blood collection technique which could have wide applications.

Umbilical cord blood collection was done at the Nowrosjee Wadia Maternity Hospital. Cord blood was collected from ten term infants delivered by elective cesarean section. After delivery of the infant, the cord was clamped at the infant end approximately 5 cm proximal to the umbilicus. The cord was compressed manually

between the thumb and index finger just proximal to the clamp and cut between the clamp and fingers. It was then cannulated with a Fr 10 infant feeding tube to a distance of about 5 cm or more. The other end of the infant feeding tube was connected by a three-way stop cork to a sterile modified blood collection bag(3) containing 25 ml acid citrate dextrose and 1 ml preservative-free heparin. Blood was allowed to flow by gravity into the transfusion bag. On cessation of the flow, blood was aspirated from the placenta with a syringe attached to the three-way stop cork and flushed into the collection bag. When no further blood flow was obtained, the collection bag was disconnected and sealed.

All the ten infants were delivered at term by elective Cesarean section. The mean birth weight was 3 kg (range 2.75 kg - 3.35 kg) and the mean cord blood volume collected was 104.1 ml (range 80 ml-123 ml). Bacteriological studies did not yield any growth in all the ten samples.

Our collection technique differs from those reported by others(1,2,4,5) by being an *in utero* collection of placental blood using an infant feeding tube instead of needles. An infant feeding tube was used to ensure a continuous flow and to prevent accidental pricking of the umbilical vein