Lipoid Pneumonia in South Indian Infants

Instillation of small amounts of vegetable oil twice a week into the mouth or the nostrils of healthy infants at bath-time is a common practice in South India. The womenfolk instil and blow the oil into the nose of the infant with a view "to clear and lubricate his nasal passage". This practice results in aspiration pneumonia (lipoid pneumonia). Lung biopsy studies done at our hospital demonstrated lipid laden macrophages in the alveoli of these infants establishing the causal relationship between oil installation and pulmonary involvement(1). Despite its recognition in 1973 and consequent health education–dissuading the mothers from such a practice–the problem still persists.

Bronchopneumonia (50%), viral bronchiolitis (25%) and lipoid pneumonia are the leading causes or respiratory distress in infants admitted to our department. Out of 741 infants admitted for acute lower respiratory infections (LRI), 132 (18%) were diagnosed to have lipoid pneumonia (Study period 1984-1987). Three-fourths of them (98 of 132) were less than three months of age. Onset of respiratory distress was 3-7 days after oil instillation in 80% (108 of 132) but only in a fifth of them the onset was within 24 hours. None of the infants with lipoid pneumonia had any preceding viral respiratory symptoms. Infants with bronchopneumonia or bronchiolitis had no history of oil instillation.

The initial presenting features were tachypnea (respiratory rate >50/min), sub-costal retractions and poor feeding. In half the infants the *X*-ray chest was normal despite progressive clinical signs. In other bronchopneumonic changes were seen. One hundred and twenty infants recovered within 3-7 days after intravenous fluids, oxygen and antibiotics. Twelve (9%) died due to progressive respiratory failure. High fever, ileus, convulsions were associated with progressive respiratory failure. Blood, throat swab, deep laryngeal swab and lung aspirate cultures (latter done in selected cases) grew no respiratory pathogen; a third of survivors followed up to 12 months after discharge were normal.

No clinical or radiological sign discriminated between infants with bacterial pneumonia and those with lipoid pneumonia. Hence eliciting a history of "Oil instillation and blowing at bathtime" is important to recognize the entity of lipoid pneumonia. Contaminated vegetable oil, poor oral hygiene of womenfolk blowing in the oil, deteriorating clinical picture prompted us to treat these infants with antibiotics (ampicillin + gentamicin) empirically for a week.

We are not aware if such a practice exists in other developing countries also. ARI control programmes of the World Health Organization must educate womenfolk at the community level to give up this unnecessary and harmful practice. Lipoid pneumonia is an iatrogenic condition totally preventable by health education.

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Ciprofloxacin: The Current Status in Pediatric Practice

The article on Ciprofloxacin by Kulshrestha *et al.*(1) conveys the message that the drug is contraindicated for use in children. We wish to discuss the controversy relating to its use in pediatric practice.

Ciprofloxacin belongs to the class of fuoroquinolones, which have been found to cause an irreversible arthropathy in dogs(2). While this finding does justify the need for caution, it would be unwise to deny the benefits of this excellent antimicrobial to children and juvenile patients for this reason alone. Nalidixic acid, another quinolone, though reported to cause a similar arthropathy in animals, has amply demonstrated its safety in children(3). This suggests that interspecies differences exist. besides, the arthropathy in experimental studies seems to be multifactorial since eliminating or reducing stress and fatigue decreases the risk when the drug is given in therapeutic doses(3). Moreover, there are now several encouraging reports of the efficacy of fluoroquinolones in children in the absence of any significant arthropathy(4,5). These facts justify that ciprofloxacin could be safely used to treat infections in difficult situations. In addition to the indications enumerated by the authors, we have found ciprofloxacin to be particularly effective in the following situations:

1. Typhoid fever caused by multi-drug resistant *Salmonella typhi* (resistant to amoxicillin, cotrimoxazole and chloramphenicol(6).
2. Nosocomial Gram-negative infections which fail to respond to third generation cephalosporins.
3. In combination with rifampicin to treat methicillin resistant *Staphylococcus aureus* infections(7).
4. A second line drug in the treatment of culture negative febrile neutropenia in children receiving cancer chemotherapy.

We have not recorded a single instance of arthropathy in any of the several patients who have been administered ciprofloxacin in the preceding 6 months. Prospective evaluations are continuing.

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