Letters to the Editor

Ciprofloxacin 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 fluoroquinolones, 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, co-trimoxazole 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 evaluation is continuing.

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Congenital Pulmonary Cyst

Congenital pulmonary cyst is a rare condition, although intrathoracic cysts are not infrequent in children(1,2). We report a case of congenital pulmonary cyst which simulated tension pneumothorax following air trapping and infection.

An 8-year-old boy developed acute respiratory distress with tachypnea-dyspnea, fever and tachycardia. He was taken to a District Hospital where a chest roentgenogram showed a large cystic space with collapse of right lung. A diagnosis of tension pneumothorax was made and an intercostal drain was inserted anteriorly in the second intercostal space. However, the radiological changes persisted and there was a marginal improvement in the clinical state of the patient. He was than referred to us for further management. There was no air entry in the right hemithorax. *X*-ray chest showed radiolucent right hemithorax, without any shifting of mediastinum to the left with herniation of the lesion across the anterior mediastinum (*Fig. 1A*). A diagnosis of congenital pulmonary cyst was made and pre-operative lung functions (bed side tests, acid-base studies and blood gas analysis) showed compromise of function of moderate degree. A standard right postero-lateral thoracotomy revealed a cyst of the lung arising from the periphery of the lower lobe. Pulmonary cystectomy was performed and the child made an uneventful recovery with expansion of lung (*Fig. 1B*). The histology of the excised cyst wall showed tall ciliated columnar epithelium, and secondary infection with squamous changes at other sites. He is asymptomatic and with normal pulmonary functions at 2 year follow-up.

Congenital pulmonary cysts are considered to arise as a result of abnormal bronchial budding at relatively distal levels of the tracheo-bronchial tree(3). These cysts, which communicate with the bronchial tree, can be unilocular or multi-locular and are lined with respiratory epithelium. Secondary infection can destroy the columnar epithelium making pathological differentiation from empyema or lung abscess impossible. They usually produce signs early in life, either by enlarging rapidly as a result of air trapping within the cyst or more frequently, by becoming secondarily infected. Communication of the cyst with the bronchial tree and secondary infection may result in rapid expansion of the cyst because of a ball valve obstruction in the narrow communicating channel(5). Radiological features depend on the extent and site of the lesion; the chest *X*-ray is an important investigation for diagnosis. More recently ultrasound, computed tomography and magnetic resonance imaging are used