

### Ciprofloxacin—Is it Going to be the Drug of First Choice in Typhoid Fever ?

Typhoid fever resistant to chloramphenicol, ampicillin, amoxicillin or co-trimoxazole is causing concern. Three cases have been reported from Bombay recently(1). In such multiple drug resistant cases and also in life threatening conditions, Ciprofloxacin has been used(2), although it is not recommended for children below 12 years of age.

Presently we are in the midst of multi drug resistant typhoid fever in Bangalore. In the last 6 months (Sept '90 to Feb '91) we had 51 cases of blood culture positive typhoid fever admitted to our Pediatric Ward. Of these 51 (100%), 49 (96%), and 44 (86%) were resistant to ampicillin, co-trimoxazole and chloramphenicol, respectively. However all were sensitive to ciprofloxacin. Almost none of our cases responded to the drug of first choice, namely chloramphenicol (except the 7 which were chloramphenicol sensitive). These ended up having ciprofloxacin, to which they responded.

In almost all our cases the minimum period of fever before hospital admission was 7 days, then they had chloramphenicol for 7 days followed by ciprofloxacin for a minimum of 10 days. Thus their minimum days of suffering and hospital stay were 24 and 17, respectively. Besides this one of our patients died of acute peritonitis and acute renal failure before we could get the

blood culture report. Therefore, in the last month, i.e., February 1991 we decided to start them on ciprofloxacin from the very first day of hospital admission on clinical ground and on positive widal report. Subsequently, positive blood culture showing multiple drug resistant organisms did justify our treatment with ciprofloxacin. In this way we reduced their suffering and hospital stay to 7-10 days only.

Presently, we are undertaking a study on all these patients to find out the effect of ciprofloxacin on the growing bones. However, we have not come across any other side effects.

We fully agree with others(3) that the newer quinolones should not be used as a first line of therapy. However, we felt that in the event of such an outbreak with multiple drug resistant organisms it is justified to start the treatment with ciprofloxacin to reduce the suffering of the patients, their hospital stay and cost of the treatment.

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