

### Chloramphenicol Resistant Typhoid Fever

Reports have appeared in the literature describing the chloramphenicol resistant strains of organisms causing typhoid fever(1,2). We report drug sensitivity pattern of *Salmonella typhi* in 20 cases of typhoid fever.

These patients presented with prolonged fever, pain abdomen, vomiting, diarrhea, headache and cough. All of them had hepatomegaly; splenomegaly was found in about 1/3 of them. Majority of them showed normal leucocyte count with eosinopenia. Widal test was positive in all the cases.

*In vitro* sensitivity to all the drugs tested was observed only in 4 (20%) cases, the remaining 16 (80%) being resistant to chloramphenicol. Organisms in all the cases were sensitive to gentamicin, kanamycin, amikacin, cephaloridine and ciprofloxacin. Sensitivity to ampicillin, cotrimoxazole and tetracycline was seen in 9 (45%), 7 (35%) and 12 (60%) cases, respectively. Khadilkar *et al.* have also reported almost similar drug sensitivity pattern of *Salmonella typhi* in four cases(3).

The emergence of chlormaphenicol resistant strains of *Salmonella typhi* may be due to indiscriminate use and irrational combinations of this drug and should therefore be discouraged. As various

newer, costly and toxic drugs can not be used in pediatric age, this observation is a newer challenge to Pediatricians.

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### Treatment of Enteric Fever — What Next?

*Salmonella typhi* infection is common in developing countries like India. Children are especially vulnerable to enteric salmonellosis(1). Chloramphenicol and co-trimoxazole have been the traditional drugs for treatment of enteric fever(2). However, multiple drug resistant *Salmonella typhi* have been reported recently from the Southern and Western part of the country(3,4). We have also encountered the problem of multiple drug resistant *Salmonella typhi* in our centre at Chandigarh.

In the last 3 months, we have managed 4 children (3 male and one female), aged 9, 3, 6 and 11 years with blood culture positive for *Salmonella typhi*. The bacteria were resistant to chloramphenicol, co-trimoxazole, ampicillin and cefotaxime. They were sensitive to ofloxacin and ciprofloxacin. The presentation of the patients differed widely. The 9 years old child presented with high grade fever, colicky abdominal pain, tender palpable gall bladder and hepatosplenomegaly. A clinical diagnosis of acute cholecystitis was made. The patient recovered with ciprofloxacin 10 mg/kg/day intravenous for 14 days. There was recurrence of symptoms after 1 month. He received a repeat course and cholecystectomy was done. The bile culture was sterile and histopathology of the gall bladder was normal. The 3-year-old patient was on antitubercular therapy for pulmonary tuberculosis for the last 4 months. He presented with high grade fever for 7 days with high colored urine and altered sensorium for 2 days. He had a firm hepatomegaly (3 cm palpable) and splenomegaly. His liver enzymes were raised and cerebrospinal fluid examination was normal. An acute-on chronic liver disease was thought of initially. The 6-year-old patient a sib of the 3-year-old, presented with high grade fever and soft hepatomegaly with palpable spleen. Both of them also received ciprofloxacin for 14 days. The female child (age 11 years) presented with high grade intermittent fever with rigors and chills. She had features of upper respiratory tract infection and splenohepatomegaly. She received oral ciprofloxacin for 14 days. All the patients responded to ciprofloxacin. However, the fever came down only between 4th to 7th day. No side effects of ciprofloxacin were noted.

In view of the emergence of *Salmonella*

*typhi* strains which are resistant to chloramphenicol and co-trimoxazole, the management of enteric fever merits reconsideration. One has the option of using third generation cephalosporins like ceftriaxone(5) or newer quinoline antimicrobial agent like ciprofloxacin(6) which are costly (cost of entire treatment with ceftriaxone Rs. 2000-3000 and with ciprofloxacin Rs. 450-500).

This experience is confined to hospital based observations and may not be a true reflection of situation in the community. There is an urgent need to examine the status of resistant strain of *S. typhi* in the community to evolve a rational approach to therapy. In the meantime patients suspected of enteric fever may continue to be treated with chloramphenicol/co-trimoxazole. However, those not responding within a week or those with complications be transferred to a hospital with facilities to determine resistance so that timely and appropriate treatment may be initiated. Indiscriminate use of newer antibiotics should be discouraged to avoid emergence of further resistant strains.

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## Evaluation of Award Papers for National Conferences

We enjoyed the award paper session at the annual IAP Conference at Hyderabad which included five papers. However, as the results were declared beforehand there was hardly any excitement in audience. Also, the quality of platform presentation did not matter at all.

In my opinion, as is also generally felt, the evaluation of art of presentation is also necessary and as already commented(1), the weightage for this should not exceed more than 10%. Similarly some weightage (5-10%) should also be given to the replies given by the presenters to the questions asked by judges. In the award paper session, only the judges and not the audience, should be permitted to ask questions. Judges should keep the queries ready so

that there is no waste of time and quality of questions is good. At least 5 minutes should be devoted to question answer session after each paper. If some people feel that this may complicate the issue, then the weightage given to this point could be minimized to the extent of just 5%. This will maintain the interest of everyone till the end of the session. Top ranking three papers for each award (totalling 12 papers for 4 awards) should be selected for on the spot competition. They may be divided into 2 sessions of 6 papers each, taking 90 minutes for completion of each session. Assessment to the extent of 85% is done beforehand and 15% assessment is done on the spot so that excitement continues, assessment is fair and unhurried and platform presentation does matter.

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## IAP Awards

I was interested to read Hegde and Vaidya's views on the IAP awards(1) and the editorial response(2) in the December issue of the Journal. Since I was instrumental in bringing about the changes in the award system (from "on-the-spot judging" to a peer review process), I may be allowed