

Nalidixic Acid is still the Drug of Choice for Shigellosis in Pakistan

Madam, Shigellosis is endemic in all the developing countries of the world¹. Isolation of *Shigella* spp from stool specimens of diarrhoea cases is not an infrequent occurrence in Pakistan. Antibiotic therapy shortens the duration of illness and significantly reduces the risk of transmission². Choice for empirical treatment will depend upon the local antibiotic susceptibility pattern of the isolates. Conventional antibiotics available in our country for bacterial diarrhoeas include ampicillin, cotrimoxazole, tetracycline and chloramphenicol. A study was conducted at the Department of Pathology, PNS Shifa (Naval Hospital) Karachi, to know the antibiotic susceptibility pattern of the *Shigellae* isolates, so that recommendations can be made for empirical treatment. A total of 38 Shigellosis cases were diagnosed by the isolation of *Shigellae* from their stools during July 1997 to June 1999. Twenty-six of these patients were male and the rest (n=12) were female. Out of these 23 were children below 10 years of age including 14 below 1 year. The *Shigellae* isolated included *Shigella flexnerii* isolates (n=22) and *Shigellae dysenteriae* (n=16). Antibiotic susceptibility of all the isolates was studied by using Modified Kirby Baur disc diffusion technique. Antibiotics studied included ampicillin, co-trimoxazole, tetracycline, doxycycline, chloramphenicol, nalidixic acid, norfloxacin and ciprofloxacin. Only 13.55% (5 out of 38) were found susceptible to ampicillin, 10.52% (4 out of 38) to doxycycline and 23.65% (9 out of 38) to chloramphenicol. All the isolates were found susceptible to the quinolones including nalidixic acid, norfloxacin and ciprofloxacin. A similar high resistance to the conventional antibiotics and 100% susceptibility to the quinolones has been reported in other studies from Pakistan and a few neighbouring countries as well. In a study conducted in Rawalpindi during 1994-95, 100% resistance to chloramphenicol, 67.31% to ampicillin, 75% to co-trimoxazole and 90.39% to doxycycline and tetracycline has been reported³. The most probable reason for such high resistance in these countries is, over the counter availability and over prescription of these drugs by the physicians. This study indicates that these conventional antibiotics have no role in the treatment of Shigellosis in Pakistan. Out of the quinolones nalidixic acid has been found to be an effective and safe drug in acute bacterial diarrhoeas. It is well tolerated even in children less than 3 months of age⁴. It is recommended that nalidixic acid should be used for treatment of shigellosis in all the age groups. The use of fluorinated quinolones should be restricted to other systemic infections as inappropriate use of these may accelerate the development of drug resistant shigellae. The use of nalidixic acid will also help to reduce the resistance to the conventional drugs. But, nalidixic acid resistance shigellae have been reported in Asian countries and resistance to fluorinated quinolones might emerge in future⁵. Therefore we should look for an alternate group of drugs, probably the third generation cephalosporins for the treatment of shigellosis. Both in vivo and in vitro studies are required to prove their efficacy in such cases.

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References

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