LETTER TO THE EDITOR

SUPPURATIVE LESION DUE TO SALMONELLA TYPHI

It was interesting to read two case reports on suppurative lesions due to Salmonella enterica serotype typhi, in the December 2004 issue of the Journal.[1,2]

During the pathogenesis of enteric fever the bacteria invade and multiply within the mononuclear phagocytic cells of the liver.[3] These organisms may lurk in the liver to produce an abscess in the face of ineffective therapy with Ciprofloxacin which the patient had received for 15 days and might not have cleared the organisms from the tissues. It has been recently observed that Salmonella enterica serotype typhi strains have undergone first step mutation to Ciprofloxacin resistance as evidenced by in-vitro resistance to Nalidixic acid.[4] Such strains show a sensitivity zone pattern for Ciprofloxacin in the in vitro disc diffusion method using NCCLS break point. However with the usual dosage of Ciprofloxacin treatment, failure may occur.[5] Such patients respond readily to Ceftriaxone. This could have been the case in the patient described. It would have been clear if the authors had reported at least the Nalidixic acid sensitivity of the *Salmonella typhi* isolated, if not the MIC for Ciprofloxacin.

In the paper on Ovarian cyst infected with *Salmonella enterica* serotype Typhi, the authors write that the dermoid cyst might have helped localization following a subclinical infection. This to our mind appears plausible. In volunteer experiments involving the Quailes strain of Salmonella enterica serotype Typhi a few volunteers are reported to have escaped clinical illness even after ingesting 100 times the 50% infective dose. Most of these volunteers became symptom less excreters, a few of them had transient pyrexia with a positive blood culture and many made antibodies. As symptomless infections may be common in Vi negative strains, Vi typing might have thrown more light on pathogenesis in this case.[6]

We think it is relevant that the fate of the conceptus needs to be mentioned. Ciprofloxacin is contraindicated during pregnancy[7], and the use of Metronidazole in pregnancy is controversial.[8] Should we assume that these drugs were administered to the patient after the conceptus was removed?

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Dr. Rajesh PK[1] replies:-

1) We did not do sensitivity to Nalidixic acid.
2) The MIC of Ciprofloxacin was determined and found to be ≥ 0.38 µg/ by E-Test.

Dr. Jose Paul[2] replies:-

As Professor SR Prasad has pointed out, we agree that a Vi typing of the strain will throw more light on the case. We are taking steps to get the strain Vi typed. As regards treatment given, Ciprofloxacin was started after the foetus aborted, 3 days after the laparotomy.