

ASCITES — An Under-reported Finding in Enteric Fever?

Enteric fever has always been a serious problem in developing countries. The advent of multidrug resistant *S. typhi* in India might be resulting in clinical presentations not that frequently reported. Typhoid is known to have multi-system involvement - the common presenting features being fever and gastrointestinal symptoms. We would like to report briefly a series of four cases of typhoid fever with mild hepatic dysfunction and ascites. Although various clinical presentations such as enteric meningism, pneumonitis etc. have been reported, ascites has not been mentioned in standard text book(1).

All four children were between 4-8 years of age and presented at our hospital with persistent spiking temperature over a week. Two of them had already received amoxycillin without any response. Apart from fever all of them had diffusely tender distended abdomen with sluggish bowel sounds. Emergency X-ray ruled out any gut perforation. Initial blood reports did show altered liver function with increased liver enzymes (3-4 times of normal range) and a mild decrease in total protein (ranged from 30-36 g/dL). They were started on IV ceftriaxone after sending appropriate cultures.

In view of persistent distended tender abdomen ultrasonography of abdomen was done which revealed free fluid. Ascitic fluid tap was done in three of them which was exudative though sterile. In the remaining child this was not attempted because of scanty fluid. Widal test was positive in all of them and blood culture positive for *S. typhi* in all but one. The *S. typhi* was found to be

sensitive to ceftriaxone and ciprofloxacin though resistant to drugs like amoxycillin and chloramphenicol. On the average fever took 5-7 days to subside and liver function normalised by 10-14 days of treatment. Repeat ultrasonography of abdomen done on completion of treatment did not show any fluid.

Altered liver function is a notable feature of typhoid fever, but they are usually transient and resolve by 2-3 weeks(2), similar to this series. Though there are many reports of peritonitis in typhoid fever only a couple of case reports on peritoneal fluid collection without any evidence of perforation are available in international literature. Chiu, *et al.*(3) reported an incidence of 4% of ascites or pleural effusion among 71 children with typhoid fever.

Judet, *et al.*(4) reported two cases of peritoneal effusion in patients with typhoid fever and suggested that typhoid fever should be considered when ultrasonography shows an isolated peritoneal effusion in a febrile child.

The cause of ascites is not clear. Burdzinska, *et al.*(5) described polyserositis in course of typhoid fever. The exudative nature of the fluid in our cases also points to a generalised inflammation of peritoneal serous layer. Albumin was not low enough to be a likely cause.

Ascites was not clinically suspected in any of these children and the diagnosis was basically accidental. There is no similar report in Indian literature, but one wonders whether it is being under reported or missed.

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Preventive Education against HIV/AIDS in the Schools of Iran

With reference to the informative editorial by Dr. M.K.C. Nair entitled: "Adolescent Sexual and Reproductive Health"(1), we present a summary of our recent country study of preventive education against HIV/AIDS in the schools in Iran(2). Like India(1) the cultural and social mores of Iran complicate discussion of sexual activity, especially among the youth and unmarried(2,3). To deal with this as an obstacle in the preventive education, peer education programs have been started in guidance schools and high schools all over the country and thousands of students are being trained every year to educate their peers on HIV/AIDS(2). Consultants and health workers in guidance schools and high schools will educate the selected students for efficient peer education. These trained students will also attend the campaigns held by the Ministry of Education. We have

developed a cross-country long-term preventive education for the students in first year of high school. Currently, 13000 In-service biology teachers and school physicians are being trained as they can educate nearly 1.5 million students in high schools. A special course on HIV/AIDS has been designed as an appendix to biology books for the first grade high school students(2). Cultural issues have been considered in designing the course to avoid the possible negative reactions by the families of the students. The program is to be started in 2004 and we hope to modify the course after we see the feedback in practice.

The Initiative FRESH (Focusing Resources on Effective School Health)(4), calling for implementation in all schools of four basic core components of school health is also to be implemented till 2005 in our schools. Consultation centers have already been founded to cover: HIV/AIDS patients, high-risk groups and the whole community.

Finally, we are now working on capacity