LETTER TO EDITOR

SALMONELLA ENTERICA SEROTYPE PARATYPHI A INDUCED ACUTE DIARRHEA

Sir,

Infections with Salmonella enterica serotype paratyphi A are occasionally associated with acute renal failure, and diarrhea. We encountered a case of Salmonella enterica serotype paratyphi A induced acute diarrhea in a 45-year male in the Indian capital metropolis of New Delhi.

A 45-year male was suffering from high-grade fever with shivering and temperature reaching 105°F for the past three days, nausea and loose watery stools for three days. On admission, his pulse was 96/minute, blood pressure 100/60 mmHg and temperature of 99°F. He had vague tenderness in abdomen and there was no radiological abnormality in the chest.

Examination of the loose stool showed mucus but no blood. Microscopic examination showed 25-35 pus cells per high power field but no erythrocytes, cysts, or parasitic ova. Culture of the stool of MacConkey and Desoxyxcholate citrate medium showed pure growth of one type of non-lactose fermenting colonies. Gram staining showed Gram-negative bacilli.

Isolate was characterized by biochemical and serological tests. Slide agglutination with typing antisera (Central Research Institute, Kasauli) produced a profile of O: 2, H:a. The isolate was sensitive to ampicillin, amoxicillin-clavulanic acid, tetracycline, chloramphenicol, gentamicin, ofloxacin, amikacin, erythromycin, ciprofloxacin, penfloxacinn, and gatifloxacin. The patient received intravenous fluids, metronidazole, penpaprazole, hydrocortisone and gatifloxacin intravenous. The response was remarkable and he was discharged with gatifloxacin for a further period of four days. He was lost for a subsequent evaluation.

In southeast Asian countries, Salmonella paratyphi A is not regarded as all that common enteric pathogen associated with acute diarrhea. Nevertheless, Salmonella paratyphi A has been associated with replication at unusual locations. For example, it had caused multiple liver abscesses in a 28-year-old male patient. The imaging studies revealed multiple liver abscesses and an ultrasound (US) guided aspiration of the abscess yielded heavy growth of Salmonella paratyphi A. Salmonella enterica serotype paratyphi A was also isolated from the urine of a 37-year-old Saudi patient who was a known case of nephrolithiasis and hydrenephrosis with frequent admission for management of renal stones.

Current affliction of a 45-year-old male with acute diarrhea with pure bacterial growth in the stool on the fourth day of illness is intriguing. The patient might have been labeled as an inflammatory bowel disease had it not been for the stool culture. There would be no chance of a Salmonella enterica serotype paratyphi A diagnosis. The patient responded well to one of the quinolones. Identification of the offending microbe and antibiotic therapy were effective in control of the acute enteritis. Serum could not be tested by Widal test for quantification of antibodies to different salmonella antigens associated with Salmonella typhi, S. paratyphi A or S. paratyphi B.

Right now multidrug resistance among Salmonella paratyphi A isolates would not appear to be all that frequent in developing countries in Asia. In all probability, considerable period would elapse before one could expect an ideal environmental sanitation in typhoid-paratyphoid endemic area. Prophylactic vaccines could address the scourge of enteric fevers. Prophylactic vaccines were available against Salmonella typhi, paratyphi A and paratyphi B. Constant exclusion of the paratyphoid A, B and C components from the recent typhoid vaccines is most unfortunate. Such a combined immunization agent would address a wide range of Salmonella induced enteric fever and unusual manifestations at other sites.

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REFERENCES


PREVALENCE OF OVERWEIGHT AND OBESITY AMONGST ELDERLY PATIENTS ATTENDING A GERIATRIC CLINIC IN A TERTIARY CARE HOSPITAL IN DELHI, INDIA

Sir,

Elderly subjects now constitute 6.7% of India's population and this proportion is likely to rise. Elderly people in high and middle income groups are vulnerable to over nutrition and obesity as aging is usually associated with a decrease in physical activity and an increase in sedentary lifestyle. Limited studies have been conducted in India to assess the prevalence of overweight and obesity amongst elderly population and hence the present hospital based pilot study was...
conducted to document the data on this aspect. A total of 206 consecutive subjects attending a Geriatric clinic of the out patient department of a tertiary care hospital in Delhi (All India Institute of Medical Sciences) were enrolled. The informed consent of the subjects to participate in the study was taken. A pretested semistructured questionnaire was administered to all the subjects to elicit information on their socio demographic profile, dietary pattern and anthropometry. Dietary consumption pattern was assessed using the food frequency methodology. Detailed anthropometric measurements were conducted of weight and standing height by utilising standard methodology. The mean age of the study subjects was 68.5 years. Majority (62.6%) of the subjects were males and belonged to upper lower and upper middle socio-economic status. The distribution of subjects according to their Body mass index is depicted in Table 1. It was found that 34% of men and 40.3% of women were overweight and obese, respectively. In the present study we found that there was a high consumption of foods rich in dietary fiber like green leafy vegetables, other vegetables and roots and tubers. However, the consumption of costly protective foods like milk, milk products and fruits was nil or occasional in 30% of the elderly subjects. The results of the present study revealed that overweight and obesity highlight an emerging health problem amongst elderly in Delhi. The prevalence of obesity was higher in females as compared to males. A community based study conducted amongst elderly subjects in urban slums of Delhi reported a lower prevalence of overweight and obesity than our study. This could be possibly due to the poor socio economic status of subjects included in this study. The results of the present study indicate a need to undertake multicentric studies with larger sample size to assess the prevalence of overweight and obesity amongst the elderly in India, so that appropriate interventional strategies can be developed during the adult life.

**REFERENCES**


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**LETTER TO EDITOR**

Sir

Iron deficiency (ID) is widely prevalent all over the world, especially in developing countries. Socio-economic deprivation contributes significantly to this high prevalence. In children, this deprivation leads to poor growth and development, besides anemia. Protein and iron supplement should improve the situation. However, Maharashtra government provides only rice to primary school children under “Nutritious Food Scheme”; this does not provide sufficient proteins and iron. Therefore, Vasava-Datta Foundation, which runs dispensaries in five villages in Kalyan Taluka, decided to supplement this by additional supply of Udad Dal (to be mixed with rice for preparing ‘khichadi’) and also supply iron syrup, to the school children.

Eighteen students from Ane Village Primary School in Kalyan Taluka were taken up for study after obtaining informed consent from the parents. Students were 6-10 years in age. Ten were female and eight were male. Their height and weight were recorded and hemoglobin and stools were examined. After these base line studies, students received daily dietary supplement (khichadi) and iron syrup (15 mg elemental iron), six days in a week for a period of 6 months. Those with helminthiasis (2 students) received mebendazole for 3 days and those with amebiasis (five students) received metronidazole for 10 days before starting the supplementation. At the end of six months, height, weight and hemoglobin were assessed.

Basal (Mean) height, weight and hemoglobin were 116.1 cm, 17.0 kg and 11.3 g/dl respectively. After six months of supplementation mean height, weight and hemoglobin increased to 118.3 cms, 19.8 kg and 12.1 g/dl respectively. Using paired t test, increase in height, weight and hemoglobin were highly significant ($P < 0.001$)

Socioeconomic deprivation leads to nutritional deficiencies leading to impaired physical and mental growth, anemia and morbidity associated with that. This constitutes a major public health problem, especially in rural areas. Supplementation programme, which succeeds in reaching the target population, is sure to reverse the adverse effects of malnutrition as has been shown in the study. Besides objective improvement shown in the study, students had found improved physical and mental activity, which was also noted by the teachers.

**REFERENCES**