

Neurologic Manifestations of Childhood Shigellosis

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Objective: Review the neurologic manifestations of shigellosis in children.

Methodology: Eight hundred sixty-three consecutive patients with shigellosis, admitted to the treatment centre of ICDDR,B during a one-year period, were prospectively studied. Patients were divided into four groups based on history and findings of physical examinations: conscious; unconscious; seizure witnessed in hospital; and seizure by history but not witnessed.

Results: Of the 71 patients aged about 15 years, 14% were unconscious either on admission or during hospitalization; none had seizures. Seven hundred ninety-two patients were aged less than 15 years; 9% were unconscious, 5% had a seizure witnessed, and 3% had a seizure by history. Patients aged less than 15 years, who had a seizure witnessed, had a significantly higher median weight-for-age (67% of NCHS median vs. 57%); higher mean temperature (38.7°C vs. 37.9°C); lower mean sodium (126 mmol/L vs. 129 mmol/L); and were more often bacteraemic (24% vs. 7%) and hypoglycaemic (blood glucose <2.2 mmol/L; 24% vs. 2%) than conscious patients. When the analysis was restricted to patients aged less than five years and to those infected with *Shigella flexneri* (who accounted for 64% of all patients with shigellosis), the findings were similar. *Shigella* was not significantly associated with any of the 4 neurologic categories. In the multiple regression analysis of patients aged less than 15 years, factors independently associated with unconsciousness were: shock, elevated admission temperature, elevated immature and total leukocyte counts, and weight-for-age less than 60% of the median; for witnessed seizure, factors independently associated were: shock, weight-for-age less than 60% of the median, and elevated immature leukocyte count. Forty-eight percent of the 73 unconscious patients aged less than 15 years died in the hospital compared to 29% of the 41 patients who had a seizure witnessed ($p=0.081$), 6% of the conscious patients ($p<0.001$), and none of the 24 patients who had a seizure by history ($p<0.001$).

Conclusion: Both diminished consciousness and seizure were associated with a poor outcome in children with shigellosis. Prompt reduction of fever and correction of metabolic alterations may reduce the incidence of these potentially lethal complications and deaths.

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Molecular Epidemiology and Antimicrobial Susceptibility of *Neisseria gonorrhoeae* Isolated from Commercial Sex Workers in Dhaka City

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Objective: Analyze epidemiological data on gonococcal infection among the commercial sex workers in Dhaka city, antimicrobial susceptibility testing for *Neisseria gonorrhoeae*, and plasmid profile of isolates.

Methodology: Endocervical swab samples from 224 commercial sex workers (CSWs) were cultured for *N. gonorrhoeae*. The isolates were identified by the standard microbiological method and by PCR based on primers which amplify a 390-bp region of the cryptic plasmid of *N. gonorrhoeae*. Susceptibility to and minimum inhibitory concentration of penicillin, tetracycline, ciprofloxacin, cefuroxime, ceftriaxone, and spectinomycin were determined by the agar dilution and disc diffusion method. The total plasmid was extracted from the isolates, and the plasmid profiles were analyzed.