

Methodology: A street-based IUD was defined as one who injected drug during the past six months. Extensive ethnographic field observations were made to identify locations of drug use in 15 thanas of Dhaka city. Identified IDUs were recruited as guides. For quantitative data collection, structured questionnaires were supplied to 234 IDUs. For qualitative data collection, in-depth interviews and focus group discussions were conducted. For clinical examination of biological markers, blood and saliva samples were collected.

Results: Tidigesic was the most common injectable drug used. About 40% of the IDUs lived on footpath, slums, or bus/rail stations, and 37% were rickshaw-pullers and transport workers. Sixty-three percent were in jails. About 45% and 24% started using drugs when they were aged 16-20 years or below respectively. Eighty-two percent shared their needles/syringes, and 48% shared with more than ten persons. Fifty-two percent shared with their sexual partners. Seventy-eight percent took injection 1,000 times or more during their life time. The average frequency of injection was three times a day. Only 15% used their own syringes/needles. Sixty percent heard about HIV/AIDS, and one-fourth knew that needle-sharing might transmit HIV/AIDS. Friends and radio/TV were the common source of information regarding HIV/AIDS. Peers were mentioned as good choice for the source of information.

Conclusion: The prevalence of needle-sharing among the IDUs in Dhaka city is very high. Knowledge on danger of HIV/AIDS and other health hazards due to needle-sharing is low. As happened in Thailand or northeastern states of India, the IDUs may initiate the HIV epidemic here. There is a need of an intervention to make information on needle/syringe exchange and counselling facility accessible to the IDUs. There is also a need of an environment which would facilitate intervention on needle exchange or the introduction of drug substitution.

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Waning of Maternal Measles Antibody in the Offsprings

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Objective: Assess the decline of measles antibody, passively acquired from the mother, in infants from birth to nine months of age, and determine the age at which maternal measles antibody declines markedly, making infants susceptible to measles.

Methodology: The study was conducted in the departments of Paediatrics and Obstetrics and Gynaecology, Institute of Postgraduate Medicine and Research, Dhaka, during September 1992-December 1993. Children were followed up in the Paediatrics Outpatient Department up to 9 months. Blood samples from 120 full-term infants were collected at birth, at 3, 6, and 9 months of age. Samples of the mothers' blood were collected within 7 days of delivery. Measles antibody levels were detected using the ELISA IgG-antibody kit.

Results: Eighty-nine percent of the blood samples of the mothers were positive for measles IgG antibody, and were associated with their weights. In infants, this was positive in 91% at birth, and was associated with birth length. The antibody levels were positive in 64% of the infants at 3 months, 21% at 6 months, and only 17% at nine months. This decline with age was highly significant, and was more marked after three months of age. In males, the decline was more marked between 3 and 6 months of age, while in females, it was more marked between 6 and 9 months. Three infants developed measles before they were aged 9 months.

Conclusion: The maximum decline in measles antibody occurred in infants during 3-6 months of age. Maternal measles antibody was extremely low at 9 months of age. The study recommends a vaccine trial infants at 6 months of age with the standard measles vaccine in Bangladesh.

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Aetiology and Pathogenesis of Chronic Diarrhoeal Illness in Adults

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Objective: Study the aetiology of chronic diarrhoea and understand the underlying pathology leading to the disease.

Methodology: Chronic diarrhoea was defined as duration of diarrhoeal illness for approximately three weeks or longer. Nine fatal cases fulfilled the criterion and constituted the study population. Autopsy was carried out on all of them. Relevant clinical, laboratory and pathologic findings were demonstrated to understand the pathogenesis of the disease.

Results: Intestinal amoebiasis, pancolitis with mucosal necrosis and variable degree of ulceration leading to serositis or colonic perforations ranked top, being present in 3 (33.3%) cases. Coinfection with *Shigella* spp., malaria, and disseminated tuberculosis were found. Disseminated tuberculosis secondary to pulmonary tuberculosis with tuberculous ulcerations of the small bowel, or small bowel and ascending colon ranked second, being present in 2 (22.2%) cases. Severe cytomegalovirus (CMV)-associated ileitis and *Shigella*-associated colitis were noted in these cases. Severe malnutrition was a common concomitant illness in all cases. Infections, suggestive of depressed cell-mediated immunity and/or pathologic findings of lymphoid atrophy, were present in 4 (44.4%) cases. One case with severe malnutrition and lymphoid atrophy had hyperinfection with *Strongyloides stercoralis* with evidence of auto-infection. Other rare causes included diabetes mellitus with pancytopenia and ileal ulcerations and shigellosis in one, combined congenital generalized lymphangiectasia with entire gastrointestinal (GI) tract involvement and secondary systemic amyloidosis with extensive GI tract involvement in one, and immunoproliferative small and large bowel disease in one. This postmortem study failed to enrol the cases of ulcerative colitis who got well with either medical or surgical management.

Conclusion: Early management of potentially treatable infectious diseases leading to chronic diarrhoeal illness and concurrent nutritional support should be tried. Strongyloidiasis in malnourished patients should be treated.

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Typhoid Ileal Perforation: Experience with 64 Cases

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Objective: Survey patients with typhoid ileal perforation admitted to a general hospital.