and may result in right ventricular volume overload. Patients with large fistulae may present with a continous murmur, exertional dyspnoea, effort intolerance or congestive heart failure. Symptomatic patients with large fistulae should undergo surgical ligation of the fistulae at the drainage site. In our study 3 patients were found to have large coronary artery fistulae.

In conclusion, this study shows that anomalous origins of the coronary arteries are rare.

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Seroprevalence of HBs antibody among the newly admitted medical students in Bangladesh and seroconversion one year after vaccination

Hepatitis B is an important infectious occupational hazard for medical and dental students. They are at a higher risk of hepatitis B virus (HBV) infection via minor skin-cuts and accidental needle-punctures during handling of infected patients and their body fluids. The risk varies during their career but is often the highest during their professional training[1]. The infected persons may not only go through immense sufferings because of this, but may also act as a potential source of infection to patients handled by them[2]. Because of this many hospitals have adopted a policy of not allowing HBV-positive caregivers in critical areas of medicare and screening for hepatitis B viruses before admission of students into their institution, followed by mandatory vaccination[1-4]. In Bangladesh, a simple medical check-up is performed before admission into a medical college. Besides general clinical examinations, such as pulse, BP and test for eye sight, only urine is examined for the detection of sugar and protein. Screening for blood-borne viral infection is not in practice.

The present study was carried out at the Department of Microbiology, Sylhet MAG Osmani Medical College during March 2007 to March 2008 to observe the awareness of newly-admitted medical students about HBV and their response after motivation for hepatitis B vaccination. After giving a brief introducetion on the study, self-administered, questionnaires were distributed to 185 newly-admitted first-year students. Among them 108 (58.4%) voluntarily participated in the study. The respondents were aged 18.84 ± 0.77 years. The awareness level about the hazards of HBV infection is 63.0%, about availability of vaccine was 88.9%; but about the modes of disease transmission it is quite low (6.5%).

Quantitative estimation of anti-HBs was done by ELISA using kits manufactured by Adaltis Italia (SPA), Italy. Antibody titre of <10 IU/mL was considered as no protective immunity, 10-100 IU/mL as low protective immunity, and >100 IU/mL as high protective immunity.

Table I: HBs antibody titer of medical students at admission (n=108) and one year after first dose of vaccines (n=45)

HBs antibody titre	At admission n (%)	One year after vaccination n (%)
<10 IU/mL	68 (63.0)	0 (0.0)
10-100 IU/mL	16 (14.8)	19 (42.2)
>100 IU/mL	24 (22.2)	26 (57.8)

Number of students who completed at least three doses of vaccination before admission was 44 (40.7%). Of them 38 (86.4%) had protective level of immunity at admission and 6 (13.6%) had not. Among the 64 non-vaccinated students 2 (3.1%) had low protective immunity; both had history of jaundice. The rest were counseled to take three doses of recombinant hepatitis B vaccines at 0, one month and two months. Their antibody titers were measured again one year after the first dose of vaccination. All of them developed protective level of antibody (Table II). In a similar study in India the response rate of the students was very high (86.8%), but the pre-admission complete vaccination was slightly lower (38%)[6].

Table II: Anti-HBs titre at admission in relation to history of jaundice and vaccination

History of jaundice and vaccination	Anti HBs titre at admission		
	<10 IU/mL n (%)	10-100 IU/mL n (%)	>100 IU/mL n (%)
Previous history of jaundice			
Present	11 (64.7)	2 (11.8)	4 (23.5)
Absent	57 (62.6)	14 (15.4)	20 (22.0)
Family history of jaundice			
Present	25 (61.0)	8 (19.5)	8 (19.5)
Absent	43 (64.2)	8 (11.9)	16 (23.9)
Hepatitis B vaccination			
Vaccinated	6 (13.6)	14 (31.8)	24 (54.6)
Not vaccinated	62 (96.9)	2 (3.1)	00 (0.0)

No significant difference was observed in the level of protective immunity among respondents with (35.2%) or without (37.4%) history of jaundice; and with (39.0%) or without (35.8%) family history of jaundice (Table II).

The present study revealed that, there is lack of awareness in newly-admitted medical students about the risk of accidental transmission of hepatitis B. The rate of vaccination against HBV is not very high, considering the affluence of their parents. There is an urgent need of formulating a national policy for mandatory vaccinations against HBV at the time of entry into a medical institution along with taking awareness building measures regarding the professional risks associated with HBV infection. It is extremely important, taking into account the involvement of first-year medical-students in organizations like “Sandhani” and “Medicine Club”, for promotion of voluntary blood donation, blood collection and distribution in medical college hospitals in Bangladesh. Since late 2004 hepatitis B vaccination is incorporated into the EPI schedule in Bangladesh. Vaccination of the newly-admitted medical students and other health-care staff should also be actively considered, at least for twelve to fifteen years, by which most of them should be routinely immunized in childhood.

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