

Seroprevalence of syphilis, hepatitis B and C, and human immunodeficiency virus infections among women

*Yeltekin Demirel, MD, Bulent Duran, MD, Aydin Toktamis, MD, Omur Erden, MD, Meral Cetin, MD.*

The possibility of intrauterine transmission from mother to child makes the infections of Hepatitis B virus (HBV), hepatitis C virus (HCV), syphilis and human immunodeficiency virus (HIV) important subjects in antenatal health care. In our antenatal clinic, we routinely screen all pregnant women for these infections. We reported a retrospective descriptive analysis of the screening results of 916 pregnant women who attended the Antenatal Clinic of The Medical School in Sivas, Turkey and 514 non-pregnant reproductive aged women that attended as replacement donors to the Blood Center of the Turkish Red-Crescent in Sivas, Turkey through the year of 2002. The majority of the pregnant women were from middle socio-economic class and were all married. No drug or substance abuse was reported in the pregnant group. Socio-demographic characteristics of the blood donor group were unknown, except the ages. Seroprevalence of the infections in both groups were shown in **Table 1**. Seropositivity rates of the infections were not dependent on age in the pregnant and blood donor groups. The seropositivity rates were also not dependent on gravidity and other socio-demographic parameters in the pregnant group ( $p>0.05$ ).

These prevalences are consistent with those of low-risk populations, except HBV infection in both groups and HCV infection in the blood donor group. Recent data indicated that incidence of syphilis is increasing in many areas of the world with a rate as

high as 15.8%.<sup>1</sup> However, we found venereal disease research laboratory (VDRL) positivity for only one woman in the pregnant woman group. In a recent study from Turkey, it was speculated that there was a significant decline in seroprevalence of HBV from 4.3-1.3% within 5 years.<sup>1</sup> However, our findings do not justify such a speculation. The seroprevalence of HBV infection among pregnant women and blood donor women recorded in this study is higher than the worldwide reported prevalences.<sup>2-4</sup> In the present study, only one out of 5 pregnant women had already antibodies against to hepatitis B surface antigen (HBsAg). Therefore, we should not expect a significant decline in HBV seroprevalence among pregnant women until the children who were vaccinated routinely against HBV infection become young adults. Although there is no recommendation to screen all pregnant women routinely for HCV infection and there is also no intervention to prevent mother-to-child transmission of HCV infection,<sup>5</sup> we believe that pregnancy is an important time to screen HCV infection among young women with the following advantages:<sup>6</sup> Many pregnant women will have already reached to their peak likelihood of being infected and antenatal testing will provide an opportunity to identify asymptomatic women with chronic disease who will likely benefit from modern therapy with interferon and ribavirin. Testing for HCV during pregnancy will also identify infants that need subsequent testing and follow up. Additionally, screening during pregnancy decreases the low but real risk of spread of HCV infection to household and other contacts. Therefore, we suggest that all pregnant women should be screened, until it is strongly evidenced that HCV testing in pregnancy should not to be performed anymore. The recommendation to screen HIV infection in pregnancy routinely has been present since 1994.<sup>7</sup> We did not find any HIV positive pregnant woman. However, 4 HIV positive women were identified among blood donor women. This finding suggests that our population is not safe anymore against HIV infection.

Syphilis, HIV, HBV and HCV infections all share sexual intercourse as a common route of transmission.<sup>8</sup> Therefore, a correlation among the prevalence of these infections is expected. However, we did not detect such a correlation. The absence of many sexually transmitted diseases such as syphilis and HIV infection in the Turkish population could only be explained by a traditional lifestyle which strictly restricts premarital sex, multiple sexual partnership, homosexuality and substance abuse.

In conclusion, screening all pregnant patients for HBV infection preserves its validity. Screening for HCV, HIV and syphilis in pregnancy are still the subject of debate, especially in low-risk populations. Nevertheless, we suggest that all pregnant women

Table 1 - Seroprevalence of infections.

Subjects	HBsAg n (%)	Anti-HBs n (%)	Anti-HCV n (%)	Anti-HIV n (%)	VDRL n (%)
Pregnant women	19 (2.1)	179 (19.5)	2 (0.2)	0	1 (0.1)
Blood donor women	17 (3.3)	-	18 (3.5)	4 (0.8)	0

only HBsAg is routinely tested in the Blood Center of The Turkish Red-crescent. HBsAg - hepatitis B surface antigen, HBs - hepatitis B, HCV - hepatitis C virus, HIV - human immunodeficiency virus, VDRL - venereal disease research laboratory

should be screened for these infections, until the opposite is strongly evidenced by the results of large-scale randomized-controlled trials.

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From the Department of Family Medicine (Demirel, Toktamis) and the Department of Gynecology and Obstetric Clinic (Duran, Erden, Cetin), Cumhuriyet University School of Medicine Sivas, Turkey. Address correspondence and reprint requests to: Dr. Yeltekin Demirel, Assistant Professor, Department of Family Medicine, Cumhuriyet University School of Medicine, Sivas, Turkey. Tel. +90 (346) 2191300/2192122. E-mail: ydemirel@cumhuriyet.edu.tr

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Progression of obesity among Seeb school children in Oman. A preliminary study

**Youssef F. Osman, MD, Siham K. Muscati, PhD,  
Shyam S. Ganguly, PhD, Mushtaq Khan, MD,  
Badria Al-Sharji, MD.**

**O**besity is considered as the most prevalent form of malnutrition in developed countries and now it is also becoming increasingly prevalent in some developing countries. Its fast and widespread throughout the world can be compared to a communicable disease epidemic. Modern trends

towards a sedentary lifestyle and over-consumption of energy dense foods are likely to result in obesity. Moreover, more and more obesity cases are now rooted in childhood, and these seem to be the most difficult to reverse.<sup>1</sup>

Obesity presents as a serious problem in the Gulf region and present indicators show that Omani society is not an exception to such trends.<sup>2</sup> The rapid socio-economic development, which started in 1970, has led to rapid modernization accompanied by decreased physical activity and increased energy consumption. Although no information is currently available on obesity trends in childhood, recent data on the adult population are quite alarming. The National Health Survey 2000 of Omani adults shows that in the lowest surveyed age group of 20-34, 36.1% were overweight or obese, 26% with hypercholesterolemia, 17.7% with hypertension, and 8.4% having diabetes or glucose intolerance. Such prevalence figures increased rapidly with age reaching to 59.3%, 60.9%, 63.1% and 32.1% respectively for the age group of 55-64.<sup>3</sup> Obese children are known to suffer life long consequences, not only physical but also emotional and psychological. In addition, obese children suffer from several psychological implications such as poor body image and eating disorders related to low self-esteem.<sup>1</sup> In addition, the heavier body weight tends to act as an impediment to physical activity, which further compound the obesity problems. Nevertheless, recent reports from the Gulf region showed an association between obesity and hypertension among primary-school children. The overall prevalence of hypertension among primary-school children was found to be 5.1% in Kuwait and 4.8% in the Kingdom of Saudi Arabia. Furthermore, the increased prevalence of type 2 diabetes at a younger age suggests another implication of increasing child obesity. Child obesity is a precursor to adult obesity, as 70% of obese children become obese-adults with all increased health risk and associated chronic diseases, such as type 2 diabetes, hypertension, and hyperlipidemia. In this light, we attempted to study the progression of weight status among the same cohort of Omani school children at 3 successive ages; 6-7, 12-13 and 15-16 years, and compared such progression between the 2 genders.

We carried out the study among students enrolled in 2 public high schools in the Seeb district of the national capital region of Muscat, Sultanate of Oman. A cohort of 550 students in the age group of 6-7 years, who registered for the first time at the primary school level during the year 1993, formed the material of the study. This constituted a random sample of 400 males and 150 females. As a national policy, all students have to undergo a routine health examination at first entry to the primary level at age 6-7 years and subsequent entries to the preparatory level at age of 12-13 years and secondary level at