

P02-04YI Hepatitis B infection: is it a real public health threat in upper Egypt?

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Background and Aims: Egypt is well known for its high HCV prevalence. The Egyptian government has implemented a very effective program to eradicate HCV, which includes mass screening campaigns to diagnose the asymptomatic cases and widespread treatment program. On the other hand, there is little information available about the prevalence of HBV in Egypt.

Method: Luxor HCV Treatment Center was established in 2016 by Tahya Misr Fund to help fight HCV infection in Luxor city and the surrounding areas in Upper Egypt. The center adopted a unique mass screening program for both HBV and HCV. Participants aged 16 years and older were screened, at no cost from their side, for anti-HCV antibodies (anti-HCV) and hepatitis B surface antigen (HBsAg) using third generation enzyme immunoassays (Enzygnost® Anti-HCV and HbsAg). In this report, we will focus on HBV screening results and compare it to results of the 2015 Egyptian Health Issues Survey (EHIS), a large nationwide screening study.

Results: From June 2016 to May 2017, 67,007 persons were screened for HBsAg at Luxor center, including 31,945 males (47.7%) and 35,062 females (52.3%). The mean age was 43.6 years. 2947 persons (4.4%) were found positive for HBsAg. HBsAg prevalence was significantly higher in males versus females (6.2% vs. 2.75% OR = 2.3; $p < 0.0001$). The age structure of HBsAg prevalence has a steep increase to age 31 (7.7%) followed by a decline to age 60 and then flattens. In EHIS 2015, 26,047 persons aged 1-59 years were screened for anti-HCV, Hepatitis B core antibody (HBcAb) and HBsAg, including 12,319 males (47.3%) and 13,728 females (52.7%). The overall prevalence of HBcAb was 9.9% (11.3% in males - 8.7% in females), compared to 1% for HBsAg (1.2% in males - 0.8% in females). 274 persons from Luxor area were screen, in which HBcAb and HBsAg prevalence was 18% and 1.7% respectively. The age specific pattern of anti-HCV, HBcAb and HBsAg in EHIS and Luxor study are shown in **Figure (1)**.

Conclusion: HBV infection rate is very high in Egypt as indicated by the high prevalence of HBcAb (9.9%) reported in EHIS. Luckily, the majority of these infections are spontaneously resolved, and 1% only progress to chronic infection (HBsAg positive). Luxor study showed a higher HBsAg prevalence (4.4%), which is more significant in males and in the middle age group. HBV screening and vaccination of high risk groups should be enforced in this area of Upper Egypt.

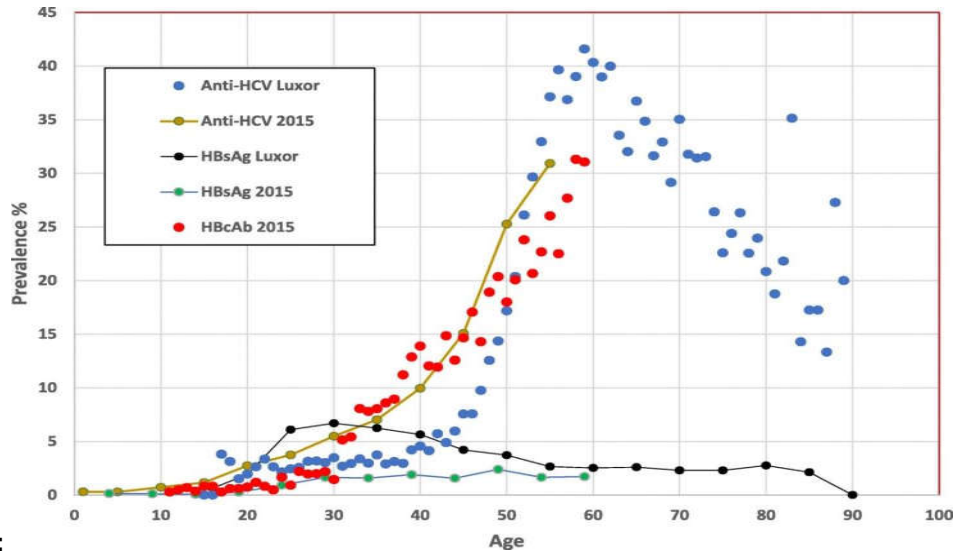


Figure: