Hepatitis C Virus Infection in Middle Eastern Countries

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HCV is an important cause of chronic liver disease in the Middle East. Specific strategies for Hepatitis C screening in selected risk groups need to be implemented to reduce the future burden of HCV infection.

Hepatitis C virus (HCV) infection is an important health challenge in the world today. HCV infection, after Hepatitis B virus (HBV) infection, is the second cause of chronic liver disease in Middle Eastern countries. The global prevalence of HCV infection has been estimated to be 3%, which equates to 170 million people with the infection. The epidemiological characteristics, prevalence and risk factors for transmission vary significantly across countries. The distribution of HCV infection is highly variable and the highest prevalence has been reported in Africa and the Middle East, with a lower prevalence in the Americas, Australia and Northern and Western Europe. The countries in the Middle East, from Afghanistan in the East to Egypt in North Africa, have a different socioeconomic and health status that affects the burden of HCV infection in those countries. In spite of good reports from many countries in the Middle East, there is insufficient up-to-date data on the current situation of the disease in some countries in that region. In this respect, there are great variations between different Middle Eastern countries and even between various regions of a country, due to differences in HCV acquisition risk factors. The most common risk factors for HCV infection in most countries of this region are iatrogenic exposure due to reuse of needles, IV addiction and transfusion of unscreened blood products.

HCV prevalence ranged from less than 0.5% in Iran and Jordan to 8% in Yemen, to more than 10% in Egypt, the highest rate in the world. Unfortunately, we have insufficient data from other countries in the region. However, most countries in the Middle East except Egypt, Yemen and Pakistan are still in the low to intermediate endemicity for HCV infection. Some of these estimations are often based on the prevalence of HCV infection in volunteer blood donors and may therefore underestimate the true prevalence in the general population.

High-risk groups such as hemophilia, thalassemia and hemodialysis patients are at a higher risk of HCV infection. HCV infection is the major co-morbidity of patients on long-term hemodialysis and nearly 30% of hemodialysis patients in the EMRO countries are infected with HCV. The prevalence is 17%, 63%, 48%, in Iran, Saudi Arabia and Egypt respectively.
Hemodialysis duration and numerous transfusions are the major risk factors of HCV infection. In the thalassemia group, there is no data from many of the Middle Eastern countries. The HCV seroprevalence is 18%, 45%, 63% and 69% in Iran, Pakistan, Saudi Arabia and Egypt respectively. Iran has the lowest seroprevalence of HCV infection among thalassemia patients that illustrates more advanced blood safety measures in this country compared with other countries with comparable population in this region. In patients with inherited coagulation disorders, there is a lack of data, and the prevalence of HCV infection among these patients was 48.07% in Iran, 36.03% in Pakistan, and around 40% overall in the region. In intravenous drug users, due to needle or syringe sharing, the issue is more complicated and the prevalence of HCV infection in this group differs in Middle Eastern countries, with 36.1% in Afghanistan 52.8% in Lebanon and more than 40% in Iran.

The global distribution of HCV genotypes is diverse, which reflects differences in epidemiology, including modes of transmissions, type of study groups and ethnicity variability. HCV genotypes 1, 2, 3 and 4 have a broad geographical distribution in the Middle East. In Egypt, Saudi Arabia, Syria and Kuwait, genotype 4 is the most common, while in Lebanon and Pakistan genotypes 2 and 3 are more common. In Iran genotype 1 is more common.

It seems that the total number and new cases of HCV infection are projected to decline in most countries in the world and in some Middle Eastern countries. This is due to the reduction in risk factors of new infections e.g. screening of blood and blood products, harm reduction programs, and aging of the infected population. But we cannot forget that the number of patients with advanced stage liver disease has increased with more cases of hepatocellular carcinoma and liver failure leading to liver transplantation.

However, in order to strengthen blood supply systems in Middle Eastern countries, it will be important to address infrastructure and facilities, organization, standard operating methods, supplies and equipment, training, quality assurance and transfusion medicine education. Implementing specific strategies for hepatitis C screening in high-risk groups will reduce the burden of HCV infection in future. Diagnose more and treat more! It is the optimum strategy now.