Scientists Uncover New Insights Into the Global Spread of Hepatitis B

It appears the liver virus may have originated in North Africa and the Middle East.

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Hepatitis B virus (HBV) likely originated in North Africa and the Middle East, according to new research examining the geographical origins of the virus. The study, published in the journal eLife, is part of a growing effort into understanding one of the world's largest viral pandemics, Phys.org reports.

The findings, which traced the roots of two different genotypes of hepatitis B—HBV-D and HBV-A—also reveal considerable differences in how the virus spread globally. It is estimated that 257 million people are living with hepatitis B around the world today, with HBV-A most commonly found in Europe and Africa, and HBV-D prevailing in Europe and the Middle East.

For the study, researchers looked at over 900 genome sequences of both genotypes of the virus to reconstruct their evolutionary development and diversification over time. They found that both had origins in Europe and Africa. However, HBV-D quickly dispersed from the region, suggesting a high amount of movement among early people infected with hepatitis B in these areas.

"This is in line with our previous observations about the central role of these regions as hubs for human expansion," explained senior study author Dimitrios Paraskevis, PhD, assistant professor of epidemiology and preventive medicine at Greece's National and Kapodistrian University of Athens.

Researchers added that after HBV-A initially spread in Africa, the genotype followed two distinct pathways: one to eastern and southern Africa and another to sub-Saharan and western Africa. Later, possibly as a result of the slave trade, it spread to Brazil, Haiti and the Indian subcontinent.

Scientists say the new findings highlight how human migrations can affect viral transmission around the world and offer new insights into the origin and transmission of hepatitis B.
