

BLOOD TEST ABNORMALITIES AND LIVER DISEASE OVER TIME IN YOUNG ADULTS LIVING WITH HIV

Liver disease in people with HIV can be due to many factors, including the HIV virus. Typically, we find liver disease by removing a small piece of the liver and examining it. This process is called a liver biopsy, and it can be uncomfortable and can lead to other problems, such as bleeding and infection. Some blood tests in adults have been used to tell if they may have liver disease without needing to have a liver biopsy. We wanted to study how useful these blood tests might be in teens and young adults living with HIV.

WHO PARTICIPATED



We looked at teens and young adults aged 15 to 20 years enrolled in the PACTG 219C and REACH studies. We included 1,612 youth living with HIV and 173 youth without HIV.

WHAT WE DID



One way to learn if someone has liver disease is to use a liver biopsy. This involves removing a piece of liver with a needle so it can be examined.

We looked at the levels of several blood tests that are used to tell us about the health of the liver. These included special liver tests called AST and ALT. We also looked at part of the blood cell called a platelet, which helps to form blood clots. **By looking at these levels, we were able to calculate scores that helped us to estimate the health of the liver.** We compared these scores in teens and young adults living with HIV to those without HIV and then looked at the trends in these scores over time among those living with HIV.

WHAT WE FOUND



Liver scores increased over time among teens and young adults living with HIV. High scores may be linked to unhealthy livers.

On average, teens and young adults living with HIV had higher scores than those without HIV at one of their visits (one point in time). This means that they may have had more risk for problems with their livers.

Over time, scores increased each year among teens and young adults living with HIV. Higher scores may be linked to unhealthy livers. Teens and young adults with better controlled HIV tended to have fewer high scores compared to youth with poorly controlled HIV infection.

WHAT WE LEARNED



Teens and young adults living with HIV may be at risk for problems with their liver health. Staying on medications for HIV and taking them regularly to keep HIV under excellent control is important to staying healthy.

We need more research in order to determine what these scores tell us about the risk of liver damage and disease in teens and young adults living with HIV.