

The Acute UFO Study: Acute HCV Infection in Young Injectors

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Project Description

Young injection drug users (IDU) constitute a distinctive high risk and understudied group with high rates of hepatitis C virus (HCV) infection. The Acute UFO study has identified 135 incident HCV infections, 95 of which are being followed prospectively.

In this study we are:

- Studying the epidemiology of acute HCV infection.
- Assessing immunological responses to acute HCV (the spectrum of cytotoxic T lymphocyte (CTL) responses and evolution within CTL targets (“epitopes”) to identify early correlates of viral resolution.
- Examining HCV transmission and risk behavior among injecting partnerships using epidemiological and molecular virology methods.
- Assessing candidacy and factors to facilitate access to early antiviral treatment for acute HCV.

Interesting Findings

HCV clearance and reinfection:

- Of 135 persons with acute HCV, 95 were followed for two years.
- An estimated 20% of acutely infected individuals resolved infection.
- 86% cleared within six months of infection.
- Women were significantly more likely to clear HCV infection than men.
- Female clearers also showed a significantly steeper decline in HCV viral load during early infection compared to male clearers.
- Reinfection and re-clearance was common.

Injection Cessation and Relapse in Young IDU

- 365 HCV-negative IDU under age 30 years
- 67% of subjects were male, median age was 22 years and median years injecting was 3.6
- 28.8% ceased injecting during the follow-up period
- Among those that ceased injecting:
 - Nearly one-half resumed drug injection on subsequent visits
 - One-quarter maintained injecting cessation
 - One-quarter were lost to follow-up
- Associated with injection cessation:
 - Participating in a drug treatment program in the last three months
 - Less than daily injecting were.
- Negatively associated with cessation:
 - Injecting heroin or heroin mixed with other drugs
 - Injecting the residue from previously used drug preparation equipment
 - Drinking alcohol
 - Using benzodiazepines