

Agranulocytosis in Cocaine Users

Public Health in Alberta have recently reported cases of agranulocytosis that appear to be related to cocaine use. No cases have been reported in Toronto to date. The agranulocytosis is not thought to be due to the drug but instead due to an adulterant or cutting agent, levamisole, a known cause of agranulocytosis in susceptible individuals. Levamisole is a chemical compound used to treat intestinal worms in humans and animals.

Seven individuals in Alberta have developed a form of immune system suppression after consuming cocaine. The cases range in age from 18 to 48 years, and presented most often with febrile neutropenia. Many of these patients developed sepsis with one requiring intensive care admission. The neutropenia is acute and profound, commonly with a neutrophil count of zero. The total white blood cell count may only be slightly below normal as the lymphocytes and other white blood cells are often normal

In a cocaine user or suspected cocaine user, any symptoms of infection including fevers may warrant an urgent CBC and differential to look for neutropenia. Urine toxicology should also be sent simultaneously looking for cocaine and levamisole. The latter drug has a short detection "window" in urine (specimen should be collected within 24-48h of use).

If clinicians become aware of any cases in Toronto, public health would greatly appreciate being notified. Please contact Dr. Rita Shahin at 416-338-7924 or rshahin@toronto.ca .

More information on the situation in Alberta is available at <http://www.capitalhealth.ca/EspeciallyFor/HealthProfessionals/default.htm>