Introduction: stroke in recreational substance users can be an indirect complication, like endocarditis and cardio embolism in parenteral drug users. With some drug like cocaine, stroke appear to be the result of a direct effect. In young subjects without other risk factors provide persuasive evidence for causality.

OPIATES: Heroine is the most abused opiate drug, which is administered by injection, by snorting or by smoking.

Stroke affects heroin users by diverse mechanisms. Injectors are at risk of infections endocarditis, which carries risk for both ischemic and hemorrhagic stroke. Cerebral or subarachnoid hemorrhage usually occurs after rupture of a septic (mycotic) aneurysm. Heroine users can are also at risk for hemorrhagic stroke secondary to liver failure with deranged clotting and to heroin nephropathy with uremia or malignant hypertension. In some heroin users the drug it self is directly causal due to vasculitis, hypersensitivity and immunologic changes.

Embollization of foreign material to brain due to mixed of heroine with quinine can cause cerebral embolism.

AMPHETAMINE AND other psychostimulants:

In abuser of amphetamine hemorrhagic stroke can occur, oral, intravenous, nasal, and inhalational routes of administration have been reported. Most were chronic user, but in several patients, stroke followed a first exposure. Some of amphetamine induced intracranial hemorrhages are secondary to acute hypertension, some to cerebral vacuities, and some to a combination of two.

Decongestants and diet pills:

Phenylpropanolamine (PPA), an amphetamine – like drug, in decongestants and diet pills, induce acute hypertension, sever headache, psychiatric symptoms, seizures and hemorrhagic stroke. Ephedrine and pseudo ephedrine are present in decongestants and bronchodilators and induce headache, tachyarrhythmia, hypertensive emergency, and hemorrhagic and occlusive stroke. Ecstasy, 3,4 Methyleneoxyxymethamphetamine (MDMA) with amphetamine like can induce ischemic or hemorrhagic strokes.

Crack cocaine: medical complication of crack cocaine is stroke. Parenteral cocaine users are at risk of stroke related to infectious endocarditis and also experience stroke caused directly by the drug itself.

Key words: substance abuse