

P02-156 - **ABNORMAL BRAIN PERFUSION AMONG COCAINE ADDICTS**

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**Introduction:** Cocaine use is related to several cardiovascular conditions. Vasoconstriction seems to be particularly harmful to the brain.

**Objective:** To evaluate the relationship between the pattern of cocaine use and cerebral perfusion among cocaine addicts.

**Method:** A sample of 30 cocaine addicts was studied using 99 m-Tc-HMPAO SPECT (single photon emission computed tomography with injection of 99 m-Tc-hexametilpropilenoamina-oxime). Their cerebral perfusion pattern was then compared with their pattern of cocaine use.

**Results:** Eighty percent of the sample presented some degree of impairment in brain perfusion, either focal or diffuse. There was no difference between sniffers and crack smokers regarding their perfusion patterns. No relationship could be established between the severity of SPECT abnormalities and the amount of drug consumption or the duration of abstinence. However, duration of cocaine use did correlate with the severity of cerebral perfusion (Spearman correlation coefficient:  $r = 0.45$ ,  $p < 0.05$ ).

**Conclusion:** This study documents the high frequency of cerebral functional impairment in cocaine addicts and establishes the relationship between duration of cocaine exposure and severity of perfusion abnormalities.