

# 4<sup>th</sup> Global Summit on **Toxicology**

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## **Histopathological changes of cerebral vessels secondary to drug abuse**

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**D**rug abuse represents a significant health issue with tremendous socio-economic consequences. Numerous narcotic substances exist but most commonly abused ones are heroin, cocaine, cannabis and amphetamine. A broad spectrum of changes affecting the central nervous system is observed in drug addicts and it is believed that histopathological changes of the cerebral vessels can lead to neuronal function deterioration, cognitive decline and psychosocial changes that are seen in drug addicts. We have conducted a post-mortem (autopsy) study on cerebral vessels of drug abusers comparing them with healthy controls. Histopathological changes observed on drug abusers' cerebral vessels include vascular lumen thrombosis, atherosclerosis, platelet aggregation, transmural and perivascular infiltration of small cerebral vessels by inflammatory cells, granulomas, dilatation of perivascular spaces with protein exudate and fibrinoid necrosis of the medium and intima. These changes are the consequences of vessel wall ischaemia and cerebrovascular diseases (infection, vasculitis), usually observed on drug abusers and can lead to vascular thrombosis or rupture. This study was conducted with the support of IKY Fellowships of Excellence for postgraduate studies in Greece-Siemens Program.

### **Biography**

Zogopoulos Panagiotis is a Resident of Neurosurgery at the General Hospital of Nikaia-Piraeus "Agios Panteleimon", Athens, Greece. His ongoing research is in the field of drugs and their interaction with human brain and cerebral vessels. Several of his papers have been published in reputed peer-review journals and he has presented various researches in international conferences.

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