



Heroin Use Could Be Also Associated with Ruptured Aortic Aneurysms

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To the Editors:

We read the article “Heroin Use Is Associated with Ruptured Saccular Aneurysms” [1] with great interest. The study examined 4701 patients and evaluated 6411 intracranial aneurysms. The study unveiled that the use of heroin is significantly associated to intracranial aneurysm rupture in patients with nonmycotic saccular cerebral aneurysms. The study proposed that the importance of heroin cessation in patients harbors unruptured intracranial aneurysms. In our hospital, we also found patients with heroin abuse had acute aortic dissection. Therefore, we believe that the vascular effect of heroin is not only in locating intracranial vessels but also in other large arteries including aorta.

According to Tsai et al. [2], they discovered that HIF-1 α is essential for the development of abdominal aortic aneurysm (AAA) in the animal model. Several aneurysmal prone factors cause up-regulation of MMP-2. They suggested that pharmacological HIF-1 α inhibition could attenuate AngII-induced AAA. Their study provided a rationale for using HIF-1 α inhibitors as an adjunctive medical therapy in addition to current cardiovascular risk-reducing regimens [2]. Thus, the AngII inhibitors reduce the inflammation and protect the vessels being injured and remodeled.

One of our patients had acute type-A aortic dissection after cessation heroin use for 2 months. The effect of heroin damage to the artery vessels may last for several weeks after termination of abuse. Since these types of patient are prone to have hypoxia at the vessels as well as increasing risk of

aneurysms rupture, we clinically suggest patient on cessation of heroin use, as AngII inhibitors, digoxin/digoxin-like compounds, might affect the management of these patients since vascular aneurysm (brain or torso) has been found to prevent progression. Therefore, a future multi-center study could be conducted to help in understanding the overall influence of AngII inhibitors during or after cessation of heroin used. In contrast, if a patient was found to have aneurysm, substance abuse may be an etiology to cause the aneurysm.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interests.

Ethical Approval This article does not contain any studies with human participants or animals performed by any of the authors.

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