

## An unusual postoperative cerebral ischemic stroke

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To the Editor:

A 19-year-old male undergoing surgery for the correction of congenital pyelo-ureteral junction stricture suffered postoperative cerebral ischemic stroke that was confirmed by magnetic resonance imaging scans. His medical history, preoperative examinations, and response to anesthesia were unremarkable, but information obtained postoperatively revealed that he was a chronic marijuana user. Postoperative echocardiography revealed the presence of atrial septum aneurysm and patent foramen ovale, leading to the suspicion that chronic marijuana chronic use and patent foramen ovale were the causes of the cerebral ischemic stroke. The incidence of cerebral ischemic stroke is 0.02–0.7 % [1]. Marijuana has potent vasoconstrictor properties that act through the delta-9-tetrahydrocannabinol and cannabinoid brain receptors (CB1 and CB2), increasing glycoprotein IIb/IIIa (GPIIb–IIIa) and activating coagulation factor VII, which is a powerful

thrombogenic substance [2]. Patent foramen ovale is a well-known cause of stroke [3]. We therefore suggest that chronic cannabis users undergoing surgery must be examined for thrombotic phenomena or stroke, hypotension and bradycardia must be treated, and anticoagulation measures must be undertaken preoperatively.

### References

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