

<div><b>Introduction</b></div> <p>Public awareness has been recently heightened to a possible link between anti-depressants and brain hemorrhage, purportedly due to a link between serotonin inhibition, platelet dysfunction, and risk of rupture. The data currently available supports a weak link between the two, but is primarily based on retrospective reviews and meta-analysis. We sought to assess the risk of poor outcome after subarachnoid hemorrhage (SAH) prospectively in patients with documented usage of anti-depressants.</p> <div><b>Methods</b></div> <p>Using prospectively collected Subarachnoid Hemorrhage Outcomes Project database, we assessed the relationship between current anti-depressant use and severity of onset, poor outcome (modified Rankin Score &gt;3 at discharge), and risk of rebleeding in 1504 SAH patients admitted from 1996-2012. Univariate comparisons and multiple logistic regressions controlling for severity and demographic data were performed.</p>	<div><b>Conclusions</b></div> <p>Anti-depressant usage is associated with increased mortality in the in-patient setting. However, this does not appear secondary to increased severity of hemorrhage or a propensity for rebleeding. Uncontrolled for factors related to the underlying illness for anti-depressant use may play a role in patient resilience to injury secondary to SAH. A more mechanistic approach to the effects of anti-depressants in inflammation and recovery is necessary to validate these results.</p> <div><b>Results</b></div> <p>One hundred thirty-five patients with current anti-depressant use were admitted for SAH. On univariate analysis, anti-depressant use was associated with Hunt and Hess score (p = 0.017) and in-patient mortality (p = 0.015), but not Fisher’s score (p = 0.34), rebleed (p = 0.73), or 12 month mRS (p = 0.36). On multivariate analysis, antidepressant usage for any reason was found to be a predictor of in-patient mortality, independent of a history of depression (p = 0.016; OR: 2.6). However, it was not found to be an independent predictor of Hunt and Hess score (p = 0.83).</p>	<div><b>Learning Objectives</b></div> <div>1) Understand the controversy surrounding SAH and anti-depressants</div> <div>2) Learn the proposed mechanisms linking anti-depressants and SAH</div> <div>3) Understand the confounding relationship between severe depression and anti-depressant use</div> <div><b>References</b></div>
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