

## Response to Reviews

To the Editor

We appreciate the thoughtful and constructive comments of your Reviewers, As noted below, we have endeavored to address all of their stated concerns. Where indicated, we have altered our text appropriately. Below we list each of the Reviewer's suggestions and document our responses.

### Reviewer #505578

My only question is whether the authors were able to adjust for other variables which may potentially affect the development of chronic hydrocephalus.

The Reviewer is quite correct in calling attention to this important point. However, I believe we have already taken pains to address it. The final paragraphs of the Methods and Results sections are concerned with the influence of important covariates on calculated treatment effect. Specifically, we note that age, sex, aneurysm location are significantly associated with development of hydrocephalus. All are more likely to cause hydrocephalus in the coiled group. As we stated, only after adjusting for them were we able to show a significant association between treatment & hydrocephalus.

### Reviewer #00646435

No suggestions

### Reviewer #00646634

- a) Please change sentence in first paragraph of Introduction to: "The most common cause of nontraumatic subarachnoid hemorrhage (SAH), ruptured cerebral aneurysm ...."

We thank Reviewer 3 for pointing out a slip that I as a neurosurgeon should not have made. We have corrected this in the manuscript.

- b) In the Results section a sentence is unclear as to what "(0.018)" refers to: "Statistical comparisons revealed significant differences between clipped and coiled cases regarding patient age ( $p = 0.045$ ), % females ( $p = 0.038$ ), and % vertebrobasilar aneurysms (0.018)." Should this be ( $p=0.018$ )?

We have corrected this error in the manuscript.

- c) Lastly, in regards to developing hydrocephalus, what is the risk ratio, relative risk or absolute percent difference between clip or coil?

For uncorrected observational data, the risk ratio (coil/clip) is 0.770, as reported in Table 2. The relative risk (coil/clip) is 0.726, and the absolute difference is 0.048. We have added these calculations to the Results section.

### Reviewer #02826575

Please add the etiology of hydrocephalus after SAH (including new theories) to the discussion...

We are a bit confused by the Reviewer's request. In the first paragraph of the Introduction we discuss the etiology of the hydrocephalus (viz. ruptured cerebral aneurysm) at some length. If the Reviewer is referring to the pathogenesis of the hydrocephalus after hemorrhage, we also briefly mention this in the same paragraph. We assumed that a more detailed discussion of the possible processes by which blood products lead to impaired CSF circulation and/or absorption would be of little interest to your readers. Please let us know if we have misinterpreted the Reviewer's comments.