Reviewer’s report

**Title:** Variation in the circle of Willis in a Sri Lankan Population

**Version:** 2  **Date:** 30 March 2009

**Reviewer:** Hisashi Tanaka

**Reviewer’s report:**

**General**

In experimental animals, variations of the circle of Willis depend on the strain (1). If this dependency holds true for humans, it will be clinically important. The authors measured the size of brain vessels of Sri Lankan people and compared the results with previous similar measurements for other races. However, the methods and definition of hypoplasia differ among some of these studies, which may hamper the validity of the comparison. Ideally, this comparison should be made at a single institution where brains of different races can be obtained, while the second-best way is to establish standard methods for measuring brain vessels. If the same methods are used, results from several institutions from around the world can be utilized to compare the brain vessel size among different races.

I am afraid this manuscript lacks a detailed description and discussion of the methods employed in this study, and as well as those used in previous studies.

**Major compulsory revisions**

Page 7 The numbers of female and male brains should be specified.

Page 7 Methods: More detailed descriptions and a photograph of a representative case should be provided. These should help readers to understand better how the size of the vessels was measured.

Page 9 Results: Most of the description on this page is also shown in the Table 1. I recommend the authors should avoid duplication and describe in this section only the most salient points of the results.

Page 9 Results: The mean and standard deviation of the sizes should be given for each segment, such as “right PCoA: 2.2 +/- 0.8mm”.

**Minor essential Revisions**

Page 7 Line 3 At “to the brain, . The”, comma is not necessary.

Page 7 Line 5 If “the circulus arteriosus” is the same as the circle of Willis, the authors should use “the circle of Willis” here. Use of synonyms may confuse some readers.

Page 19 Table1: Percentage should be displayed.
Discretionary Revisions

Page 4  Conclusion: In this section, the authors should state whether the frequency of occurrence of variations of the circle of Willis of Sri Lankan people is different from that of other race or there are no significant differences.

Page 5 Lines 7-9 Brackets [ ] may be inappropriate.

Page 7 Line 13 Product name or product number of the micrometer-calibrator may be necessary. Similarly, the city name and country of the manufacturer may be required where the micrometer-calibrator was made.

Page 7 Line 14 Please provide the initials of “the author”.

Page 10 First Paragraph: This paragraph should be moved to the Results section.

References:
(1) Strain-related differences in susceptibility to transient forebrain ischemia in SV-129 and C57black/6 mice. Fusii M, Hara H et al.. Stroke. 1997 Sep;28(9):1805-10; discussion 1811.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.