

# 学位論文審査結果の要旨

所 属	三重大学大学院医学系研究科 甲 生命医科学専攻 臨床医学系講座 脳神経外科学分野	氏 名	佐藤 丈典 <small>さとう たけのり</small>
審 査 委 員	主 査 高尾 仁二 副 査 今中 恭子 副 査 山崎 英俊		
<p>(学位論文審査結果の要旨)</p> <p>Colorimetry for wall appearance study of cerebral aneurysms</p> <p>【主論文審査の要旨】</p> <p>著者らは論文において下記の内容を述べている。</p> <p>Background: Neurosurgeons can assess thin red walls in a cerebral aneurysm during a microsurgical procedure, but the judgment of the color is subjective and could have a bias. This study aimed to quantitatively evaluate the aneurysm wall characteristics.</p> <p>Methods: In 15 unruptured cerebral aneurysms, the surface color of cerebral aneurysms, parent arteries and branches were measured using Commission International del'Eclairage <math>L^*a^*b^*</math>. The values of <math>L^*</math> (perceptual lightness), <math>a^*</math> (red-green color characteristics) and <math>b^*</math> (blue-yellow color characteristics) were compared with color discrimination by two independent neurosurgeons, which was classified into "red", "yellow", "white" and "unjudged".</p> <p>Results: Significantly lower <math>L^*</math> and higher <math>a^*</math> values were shown in red wall points consistently judged by both neurosurgeons compared with yellow or white wall points, while <math>b^*</math> values had no significant differences. Based on these results, a novel index, aneurysm red indicator (ARI) was developed as a ratio of <math>a^*</math> to <math>L^*</math> values. The ARI had a high sensitivity and specificity to discriminate red walls (0.984 and 0.986, respectively).</p> <p>Conclusions: ARI could be useful for evaluating thin red walls of cerebral aneurysms. The novel approach using colorimetry may contribute to future hemodynamics analyses related to the aneurysm wall characteristics.</p>			

脳動脈瘤の壁性状を定量評価し、colorimetryを用いて赤い脳動脈瘤壁を定義した初めての論文であり、学術上極めて有益であり、学位論文として価値あるものと認めた。

Brain Hemorrhages 2022;3(2):57-61

Available online: 30 October 2021

doi:10.1016/j.hest.2021.10.002

Takenori Sato, Fujimaro Ishida, Satoru Tanioka, Yoichi Miura,  
Katsuhiro Tanaka, Hidenori Suzuki