

流体科学研究所 博士前期課程学生海外発表促進プログラム 報告書

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発表タイトルと著者 THE RELATIONSHIP BETWEEN THE ARTERIAL GEOMETRY AND WALL SHEAR STRESS IN THE VERTEBROBASILAR SYSTEM

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1. 研究発表の内容

This presentation is about our studies done on the relationship between the geometries and the wall shear stress (WSS) in the vertebrobasilar system (VBS). This study aims to easier access to WSS data according to regular medical check, in order to help definite high-risk patients. We have presented our work including reconstructions of patient-specific vascular models, doing simulation analysis and statistical analysis to find out the detailed relations between the morphologies and the wall shear stress. For our results, we have reported the tendency that the larger the curvature of basilar artery is, the smaller the area of basilar artery is, the larger the averaged wall shear stress will be. In addition, a regression model has been used as one part of our results and fitted a regression equation. This study is one of our starting steps of finding our way for better patient management in basilar vascular diseases.

2. 今回の出張・発表で学んだこと

After my own presentation, some researchers in related fields showed their interests to our research activities and several comments were received. We are going to follow their suggestions and to change the statistical models fitted inside our studies.

Besides, we have listened to many interesting presentations on topics including damage and injury, computational fluid dynamics and computational remodeling. We have also talked with some of the participants including poster presenters, and received interesting knowledge especially on 3D remodeling, which it going to be discussed in our future work plan. In all, those communications were valuable and are going to be advanced afterwards.

3. 本プログラムへの提案・感想

Thanks a lot to this program for kindly affording me this opportunity to going abroad and attending this international conference, which is the first time for me both attending international conference and making oral presentations. This is really a nice program by offering students this kind of valuable opportunities to summarize theirs works, making presentations and communicate with researchers worldwide. Having chances to see that people are doing and discuss with people about what we are doing was really nice experience and was going to become great help for students at their future work.

On the other hand, we also received the opportunity to let other researchers know about our studies, which is going to be helpful for us to have more international connection with researchers in related fields.

4. 指導教員所見

発表自体も非常に素晴らしく、多くの研究者が発表内容に興味を示した。今後とも多くの機会を作り、成果を共有し本学術分野を先導できる人材になって欲しい。

5. 発表時の写真など

