























We compared 4D model and the MRI measurement result concerning movements of the lower muscles including quadriceps femoris.  
Changes in the muscle length resulted in errors of 5%  
→ nearly OK  
Changes in the area of the muscle section resulted in errors from 5% to 30%  
→ To be discussed later  
Evaluations for the muscle shape  
⇒ Methods under consideration

We think large deformation of major organs and blood vessels due to body movement can endure clinical use with the current 4D model.  
For deformation of muscle systems  
↓  
We will make revisions according to the role of the muscles of the deformation model and deformation parameter.  
We will use the MRI measurement results obtained from the movement of the limb that we developed this time to set the parameter of the above.

**Conclusion**

- By the method we presented, we enabled the quantitative display of changes of the soft tissue and body surface according to body motion using patient oriented data, which was not possible by the current diagnostic imaging equipment.
- Doctors can only imagine the inner structure of the body when in motion. But we believe this method will contribute to doctors being able to actually see inside the body and make better analysis.

