



| | | | Sign in |
|---|------------------------------------|-----------------|---------------------|
| The Bulletin of TOKYO DENTAL COLLEGE | Published by T | okyo Dental Co | ollege, Japan |
| Available Issues Japanese | | >> | Publisher Site |
| Author: ADVANCED Keyword: Search | Volume P | age | Go |
| Add to Favorite/Citation Articles Alerts | Add to Favorite Publications | Register Alerts | ?My J-STAGE HELP |
| <u>TOP</u> > <u>Available Issues</u> > <u>Table of Contents</u> > A | Abstract | | |
| | | PRINT | 'ISSN : 0040-8891 |
| The Bulletin of Tokyo Dental College | | | |

Vol. 49 (2008), No. 3:113-119

[PDF (260K)] [References]

Static MR Images for Diagnosis of Swallowing

Mai Ohkubo¹⁾, Tsukasa Sano²⁾, Ryo Ishida¹⁾, Takuo Higaki³⁾, Keiichi Nishikawa²⁾, Yoshihiko Hayakawa⁴⁾, Takamichi Otonari²⁾, Mika Yamamoto-Otonari²⁾, Takuya Harada²⁾ and Mamoru Wakoh²⁾

- 1) Department of Dysphagia Rehabilitation and Community Dental Care, Tokyo Dental College
- 2) Department of Oral and Maxillofacial Radiology, Tokyo Dental College
- 3) Department of Radiology, Chiba Hospital, Tokyo Dental College
- 4) Department of Computer Sciences, Faculty of Engineering, Kitami Institute of Technology

(Received May 2, 2008) (Accepted August 4, 2008)

Abstract: Evaluation of swallowing has been made possible by cine-Magnetic resonance (MR) imaging with high time resolution. However, the spatial resolution in cine-MR imaging remains inadequate for the detection of anatomical structures. Therefore, it is necessary to refer to static MR images in conjunction with cine-MR imaging. The aim of this study was to determine which MR parameters were appropriate for static imaging of the anatomical structures involved in swallowing. MR imaging was carried out, and T1-weighted, T2-weighted and proton-density-weighted MR images were obtained in the sagittal plane in 5 healthy volunteers. Each image was evaluated for anatomic landmark clarity by 3 oral radiologists. The anatomic landmarks selected were the lip, tip of tongue, center of tongue, tongue base, soft palate and epiglottis. Differences in clarity among 3 imaging modalities were evaluated. A 3-point score rating system was used. The results showed that lower TE sequences, *i.e.*, either T1-weighted or proton-density-weighted images, were the most suitable for use in conjunction with cine-MR imaging in diagnosing swallowing disorders.

Key words: Swallowing, Magnetic resonance imaging, Static imaging, Anatomic

Download Meta of Article[Help]

RIS

BibTeX

To cite this article:

Mai Ohkubo, Tsukasa Sano, Ryo Ishida, Takuo Higaki, Keiichi Nishikawa, Yoshihiko Hayakawa, Takamichi Otonari, Mika Yamamoto-Otonari, Takuya Harada and Mamoru Wakoh: "Static MR Images for Diagnosis of Swallowing". The Bulletin of Tokyo Dental College, Vol. **49**: 113-119 (2008) .

doi:10.2209/tdcpublication.49.113

JOI JST.JSTAGE/tdcpublication/49.113

Copyright (c) 2009 by Tokyo Dental College, Japan











Japan Science and Technology Information Aggregator, Electronic

