

Accepted Manuscript

Preoperative 3-dimensional angiography data and intraoperative real-time vascular data integrated in microscope-based navigation by automatic patient registration applying intraoperative computed tomography

Barbara Carl, Miriam Bopp, Somar Chehab, Siegfried Bien, Christopher Nimsky



PII: S1878-8750(18)30315-2

DOI: [10.1016/j.wneu.2018.02.045](https://doi.org/10.1016/j.wneu.2018.02.045)

Reference: WNEU 7460

To appear in: *World Neurosurgery*

Received Date: 6 January 2018

Revised Date: 4 February 2018

Accepted Date: 6 February 2018

Please cite this article as: Carl B, Bopp M, Chehab S, Bien S, Nimsky C, Preoperative 3-dimensional angiography data and intraoperative real-time vascular data integrated in microscope-based navigation by automatic patient registration applying intraoperative computed tomography, *World Neurosurgery* (2018), doi: 10.1016/j.wneu.2018.02.045.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Preoperative 3-dimensional angiography data and intraoperative real-time vascular data integrated in microscope-based navigation by automatic patient registration applying intraoperative computed tomography

Barbara Carl¹, Miriam Bopp¹, Somar Chehab¹, Siegfried Bien², Christopher Nimsky¹

¹Department of Neurosurgery, University Marburg, Marburg, Germany

²Division of Neuroradiology, University Marburg, Marburg, Germany

corresponding author Dr. med. Barbara Carl
Department of Neurosurgery
University Marburg
Baldingerstrasse
35033 Marburg
Germany

mail: carlb@med.uni-marburg.de
phone: +49-6421-5866447
fax: +49-6421-5866415

academic degrees Dr. med. Barbara Carl
Dr. rer. med. Miriam Bopp
Dr. med. Somar Chehab
Prof. Dr. med. Siegfried Bien
Prof. Dr. med. Christopher Nimsky

declarations of interest none

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات