BioMed Research International

Special Issue on
CT Perfusion: Technical Developments, Current and Future Applications

Call for Papers

CT perfusion (CTp) offers functional imaging information, as an adjunct to a conventional CT examination. It is a widely applied technique for the evaluation of acute ischemic stroke patients and to investigate other brain diseases, including tumors. It can also be used as an aid to distinguish benign and malignant lesions in body imaging and to monitor the treatment response in oncologic patients, so that some authors affirmed that CTp is a more sensitive image biomarker than RECIST criteria and tumor density for monitoring early antiangiogenic treatment effects as well as in predicting prognosis and progression-free survival at the end of treatment. CTp has gained interest and widened its use in the past few years, thanks to the availability of commercial CTp software platforms that allow the analysis and processing of dynamic datasets and are integrated into clinical reporting workstations. Although CTp imaging is theoretically able to provide quantitative results, still differences between commercial software programs impair results' reproducibility. The other main concern of CTp is the high dose delivered to patients.

We invite investigators to contribute original research articles as well as review articles and technical developments for a Special Issue in BioMed Research International. The contributions will stimulate the continuing efforts to optimize CTp protocol in order to reduce the radiation dose to the patient, to pinpoint new or extended applications of this technique, and to develop some strategies to override the differences between the software programs. The manuscript should point out both the advantages and limitations regarding the debated topic. Potential topics include, but are not limited to:

- New or extended clinical application in body imaging and in brain disease
- Technical development in brain CTp, including radiation dose reduction and protocol optimization
- Technical development in body CTp, including radiation dose reduction and protocol optimization
- Original research or review regarding the comparison between perfusion MRI vs CT, addressing the respective advantages and disadvantages

Before submission authors should carefully read over the journal's Author Guidelines, which are located at http://www.hindawi.com/journals/bmri/guidelines/. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at http://mts.hindawi.com/submit/journals/bmri/radiology/tecun/ according to the following timetable:

Manuscript Due	Friday, 23 May 2014
First Round of Reviews	Friday, 15 August 2014
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