

## عنوان مقاله:

(Determination of Seizure Zone in Temporal Lobe Epilepsy using Perfusion MRI (arterial spin labeling

## محل انتشار:

دومین کنگره بین المللی دانشجویان رادیولوژی کشور (سال: 1401)

تعداد صفحات اصل مقاله: 2

## نویسندگان:

Vahid Hossein-Zadeh - *Department of Medical Physics, Tehran University of Medical Sciences, Tehran, Iran*  
.Research Center for Molecular and Cellular Imaging, Tehran University of Medical Sciences, Tehran, Iran

Mohammad-Reza Nazem-Zadeh - *Department of Medical Physics, Tehran University of Medical Sciences, Tehran, Iran*  
.Iran Research Center for Molecular and Cellular Imaging, Tehran University of Medical Sciences, Tehran, Iran

## خلاصه مقاله:

Background: Epilepsy is a disease that manifests itself with recurrent seizures over a period of time. Temporal lobe epilepsy originates in the part of the brain that is involved in processing emotions and short-term memory[1]. In most cases, surgery can stop the seizure. Therefore, determining the exact location of the seizure area for critical surgery in patients with temporal lobe epilepsy is crucial. Imaging in epilepsy patients also plays an important role in diagnosing and deciding on their type of treatment. In the intrarectal phase, the amount of cerebral blood flow and metabolism in the affected area decreases[2]. Therefore, in addition to structural magnetic resonance imaging, functional magnetic resonance imaging, including calculating cerebral blood flow and monitoring metabolism, can be effective. Arterial spin labeling-MRI (ASL-MRI) is MRI techniques that can, non-invasively, define the regions of cerebral perfusion. The aim of the current study was to recognize the location of temporal lobe epilepsy in patients[3,4]. Results: In this study, we sought to use perfusion imaging to magnetically mark pulsed arterial blood spins as a non-invasive, non-radioactive and inexpensive method compared to other methods to detect cerebral blood flow asymmetry and Changes in metabolism in the temporal lobe can be seen in magnetic resonance imaging and clinical implementation of this technique. For this purpose, ۲۰ patients with definitive diagnosis of temporal lobe were evaluated by EEG method with Arterial spin labeling-MRI (ASL-MRI) technique. According to the results and analyzes performed on patients, the results indicate that about ۶۰%(۱۲/۲۰) of patients in the identified area according to the EEG to the conflict area according to ASI is consistent and coordinated. Conclusion: The use of ASL-MRI can be considered as in-vivo proficient bio-marker for proper identification of epileptogenic zone in patients with final diagnosis of drug-resistant temporal lobe epilepsy.

## کلمات کلیدی:

Arterial spin-labelling, drug-resistant temporal lobe epilepsy

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1535367>



