

Dr Fariborz Faeghi C.V.

Dr Fariborz Faeghi, Ph.D.

Associate Professor of Medical Physics, Major: Medical Imaging
- Clinical MRI Physicist

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About Me

I am an Associate Professor of Medical Physics and a Clinical MRI Physicist in the Department of Radiology Technology, School of Allied Medical Sciences, Shahid Beheshti University of Medical Sciences (SBMU), Tehran, Iran.

With over 25 years of academic and professional experience, I have held several leadership positions, including:

- International Relations Development Manager at SBMU Deputy for International Affairs (current)
- Dean of the School of Allied Medical Sciences (3.5 years)
- Deputy for Academic Affairs (6 years)
- Head of the Radiology Technology Department (current)

As a faculty member, I am deeply engaged in teaching and research, with a focus on Medical Imaging, particularly MRI. My expertise includes curriculum development, course design, image optimization, MRI quality control, and teaching the Clinical Physics of MRI at various specialized levels, tailored to the needs of both national and international medical imaging communities.

I have authored and co-authored over 70 peer-reviewed publications (indexed in Scopus and Google Scholar), supervised more than 100 MSc and PhD dissertations, and contributed to several translated books in Persian.

One of my strengths is designing applied and practice-oriented imaging courses (mainly in MRI, and occasionally in CT scan and Medical ultrasound) that directly address the real-world needs of clinical imaging departments. I strive to present these courses in a practical and accessible way to radiologists, technologists, neurosurgeons, neurologists, and other healthcare professionals—highlighting how evidence-based and smart imaging practices can enhance diagnostic accuracy, improve patient outcomes, and ultimately reduce healthcare costs.

Languages:

- 1- Persian (Native)
- 2- English (Advanced level)

Professional fields of working:

- 1- MR Advanced neuroimaging
- 2-Cardiovascular MR Imaging
- 3- Breast MR Imaging
- 4- Cancer Imaging: Early Diagnosis & treatment follow-up

Software skills :

- 1- MATLAB programming
- 2- Python programming (Image processing)
- 3- FSL
- 4- SPM (Latest version)
- 5- 3D Slicer

General Software skills:

1-Microsoft Office Package 2- Adobe Photoshop 3- SPSS

Positions held:

From Jul.1, 2025 - Now	International Relations Development Director (At SBMU)
From Jan. 15, 2022- Jul.1.2025	Dean-School of Allied Medical sciences
From Oct. 22, 2022 - Now	Head Of Radiology Technology Dept.
From Dec.24,2014- Now	Member of Information and technology Committee -School of Allied Medical Sciences
From Nov.30,2014- 2018	Head of Radiology Technology Dept.- School of Allied Medical Sciences
From Nov.22,2014 - Now	Member of Executive Committee for Admission of Intl. students
From Jul. 26,2014 - 2020	Deputy for Academic and Research Affairs (School of Allied Medical Sciences)
From Nov.14,2012 - 2014	Head of Radiology Technology Dept.

Teaching Experience:

Having more than 25 years of experience in designing courses and teaching physical principles of Medical imaging systems with main emphasis on clinical aspects of MR imaging systems, Advanced MR imaging clinical physics, MRI techniques and protocols, Cardiovascular imaging and Breast MR.

- **Journal Publications**

- 1) Mohammadi A, Torres-Cuenca T, Mirza-Aghazadeh-Attari M, Faeghi F, Acharya UR, Abbasian Ardakani A. Deep Radiomics Features of Median Nerves for Automated Diagnosis of Carpal Tunnel Syndrome With Ultrasound Images: A Multi-Center Study. *Journal of Ultrasound in Medicine*. 2023.
- 2) Hamyoon H, Chan WY, Mohammadi A, Kuzan TY, Mirza-Aghazadeh-Attari M, Leong WL, Altintoprak KM, Vijayananthan A, Rahmat K, Ab Mumin N, Leong SS. Artificial intelligence, BI-RADS evaluation and morphometry: A novel combination to diagnose breast cancer using ultrasonography, results from multi-center cohorts. *European Journal of Radiology*. 2022 Dec 1;157:110591.
- 3) Mohammadi A, Mirza-Aghazadeh-Attari M, Faeghi F, Homayoun H, Abolghasemi J, Vogl TJ, Bureau NJ, Bakhshandeh M, Acharya RU, Abbasian Ardakani A. Tumor Microenvironment, Radiology, and Artificial Intelligence: Should We Consider Tumor Periphery?. *Journal of Ultrasound in Medicine*. 2022 Dec;41(12):3079-90.
- 4) Mohammadi A, Mirza-Aghazadeh-Attari M, Faeghi F, Vogl TJ, Acharya UR. Diagnosis of Metastatic Lymph Nodes in Patients with Papillary Thyroid Cancer: A Comparative Multi-Center Study of Semantic Features and Deep Learning-Based Models. *Journal of Ultrasound in Medicine: Official Journal of the American Institute of Ultrasound in Medicine*. 2022 Nov 27.
- 5) Homayoun H, Chan WY, Kuzan TY, Leong WL, Altintoprak KM, Mohammadi A, Vijayananthan A, Rahmat K, Leong SS, Mirza-Aghazadeh-Attari M, Ejtehadifar S. Applications of machine-learning algorithms for prediction of benign and malignant breast lesions using ultrasound radiomics signatures: A multi-center study. *Biocybernetics and Biomedical Engineering*. 2022 Jul 1;42(3):921-33.
- 6) Sattari N, Faeghi F, Shekarchi B, Heidari MH. Assessing the Changes of Cortical Thickness in Alzheimer Disease With MRI Using Freesurfer Software. *Basic and Clinical Neuroscience*. 2022 Mar 10;13(2):185-92.
- 7) Koohsar JS, Faeghi F, Rafaiee R, Sarvandani MN, Masjoodi S, Moghaddam HK. Metabolite Alternations in the Dopamine Circuit Associated with Methamphetamine-Related Psychotic Symptoms: A Proton Magnetic Resonance Spectroscopy Study. *Iranian Journal of Psychiatry*. 2022 Jan;17(1):91.
- 8) Ardakani AA, Kwee RM, Mirza-Aghazadeh-Attari M, Castro HM, Kuzan TY, Altintoprak KM, Besutti G, Monelli F, Faeghi F, Acharya UR, Mohammadi A. A practical artificial intelligence system to diagnose COVID-19 using computed tomography: A multinational external validation study. *Pattern Recognition Letters*. 2021 Dec 1;152:42-9.
- 9) Asaadi F, Faeghi F, Ashrafi F, Taheri MS. Clinical significance of diffusion-weighted magnetic resonance imaging on treatment efficacy in MS patients with acute attacks. *Basic and Clinical Neuroscience*. 2021 Nov;12(6):729.
- 10) Hosseini E, Ashrafi F, Faeghi F, Hekmatnia A. Role of Diffusion Tensor Imaging in Parkinson's Disease Diagnosis. *Archives of Neuroscience*. 2021 Apr 30;8(2).
- 11) Faeghi F, Ardakani AA, Acharya UR, Mirza-Aghazadeh-Attari M, Abolghasemi J, Ejtehadifar S, Mohammadi A. Accurate automated diagnosis of carpal tunnel syndrome using radiomics features with ultrasound images: A comparison with radiologists' assessment. *European Journal of Radiology*. 2021 Mar 1;136:109518.
- 12) Faeghi F, SOTOODEH ZY, SARGAZI V, NEJADJAHANTIGH A, FARSIZABAN M. Diffusion-Weighted MRI Imaging and ADC Map of Patellar Chondromalacia. *Journal of Complementary Medicine Research*. 2021 Feb 6;12(1):123-.

- 13) Kouhsar JS, Faeghi F, Moghadam HK. Multi Region Neurodegenerative Changes in Methamphetamine Dependence Reveal by Magnetic Resonance Spectroscopy: A Psychological Aspects. *International Journal of Health Studies*. 2021 Jan 23;7(1):17-21.
- 14) Rajabi Zadeh Baraee K, Faeghi F, Jalal Shokoohi J, Saeedi A. Comparison of Maximum Signal Intensity of Magnevist Contrast Agent in Modified T1 Weighted Spin Echo, T1 Weighted Fast Spin Echo and T1 Weighted Gradient Echo Sequences. *Journal of Biomedical Physics and Engineering*. 2020 Dec 1;10(10 (Suppl 1)).
- 15) Sattari N, Faeghi F, Shekarchi B, Heidari MH. Assessing the Changes of Cortical Thickness in Alzheimer Disease With MRI Using Freesurfer Software. *Basic and Clinical Neuroscience*. 2022 Mar 10;13(2):185-92.
- 16) Ghane Z, Faeghi F, Ghafoori M, Payandeh A. Multiparametric MRI for the diagnosis of Tumor type in patients suspicious of inner gland prostate Cancer. *Urology Journal*. 2019 Dec 24;16(06):552-7.
- 17) Rezaei S, Faeghi F. PREOPERATIVE EVALUATION OF TUMOR ADHESION TO THE ADJACENT BRAIN TISSUE IN PATIENT WITH MENINGIOMA WITH BSMI METHOD. In *Iranian Congress of Radiology 2019 Sep 1 (Vol. 35, No. 4, pp. 105-105)*. Iranian Society of Radiology.
- 18) Davanian F, Faeghi F, Shahzadi S, Farshidfar Z. Evaluation of Diffusion Anisotropy and Diffusion Shape in Grading of Glial Tumors. *Journal of Biomedical Physics & Engineering*. 2019 Aug;9(4):459.
- 19) Eftekhari A, Faeghi F, Abolfazli R, Sanei TM, Samadzadeh S. Quantitative evaluation of cervical spine damage in MS patients and its correlation with EDSS by using diffusion tensor MR imaging. In *MULTIPLE SCLEROSIS JOURNAL* 2019 Mar 1 (Vol. 25, No. 3, pp. 441-442). 1 OLIVERS YARD, 55 CITY ROAD, LONDON EC1Y 1SP, ENGLAND: SAGE PUBLICATIONS LTD.
- 20) Farashahi A, Zare-Sadeghi A, Shakeri-Zadeh A, Kamrava SK, Maleki S, Ghaznavi H, Faeghi F. Real-time mapping of heat generation and distribution in a laser irradiated agar phantom loaded with gold nanoparticles using MR temperature imaging. *Photodiagnosis and Photodynamic Therapy*. 2019 Mar 1;25:66-73.
- 21) Hoseini E, Faeghi F, Ashrafi F, Hekmatnia A. Correlation between diffusion tensor imaging method results and the SCOPA-COG in Parkinson's disease. *J Clin Med Res*. 2019;6(5):39-44.
- 22) Mousavi F, Faeghi F, Javadian H, Haghishatkhah H, Oraee-Yazdani S. Evaluating the Origin of the Brain Metastatic Tumors by Using DWI Parameters. *International Clinical Neuroscience Journal*. 2019 Jan 1;6(3):92-7.
- 23) Alamolhoda F, Faeghi F, Bakhshandeh M, Ahmadi A, Taheri MS, Abbasi S. Diagnostic value of diffusion weighted magnetic resonance imaging in evaluation of metastatic neck lymph nodes in head and neck cancer: a sample of Iranian patient. *Asian Pacific journal of cancer prevention: APJCP*. 2019;20(6):1789.
- 24) Shahmaei V, Faeghi F, Mohammadbeigi A, Hashemi H, Ashrafi F. Evaluation of iron deposition in brain basal ganglia of patients with Parkinson's disease using quantitative susceptibility mapping. *European journal of radiology open*. 2019 Jan 1;6:169-74.
- 25) Mohammadbeigi A, Shahmaei V, Faeghi F, Hashemi H, Ashrafi F. Diagnosis of patients with Parkinson's disease using quantitative susceptibility mapping. *Iranian Journal of Medical Physics*. 2018 Dec 1;15(Special Issue-12th. Iranian Congress of Medical Physics):97-.
- 26) Nasiri-Sefat L, Faeghi F, Mohammadbeigi A, Haghishatkhah HR, Ashrafi F, Rezaei A. Evaluating The Relation Between Apparent Diffusion Coefficient, Lesion Enhancement Pattern And Severity Of Disease In Patient With Brain Stroke. In *Iranian Congress of Radiology 2018 Dec 1 (Vol. 34, No. 4, pp. 122-122)*. Iranian Society of Radiology.
- 27) Shahmaei V, Faeghi F, Mohammadbeigi A. Assessment Of The Amount Of Basal Ganglia Iron Deposition In Patient With Parkinson's Disease Using Quantitative Susceptibility Mapping (Qsm).

In Iranian Congress of Radiology 2018 Dec 1 (Vol. 34, No. 4, pp. 123-123). Iranian Society of Radiology.

- 28) Alizadeh NS, Faeghi F, Ghafouri M, Ghanaati H, Khazaei KM. Evaluation of Diagnostic Accuracy of Diffusion Weighted Imaging Sequences in Comparison with Other Sequences of Multi-parametric Imaging for Diagnosis of Peripheral Zone Prostate Cancer. General Medicine: Open Access. 2018 Nov 19;6(6):1-6.
- 29) Khorram FS, Faeghi F, Jafarisepehr A, Farshidfar Z. Evaluation of Respiratory Triggered Diffusion-Weighted MRI with Three b-Values Compared to ADC Map and Fast Spin Echo Heavily T2W in Differential Diagnosis of Hemangioma from Malignant Liver Lesions. Journal of Medical Imaging and Radiation Sciences. 2018 Sep 1;49(3):251-6.
- 30) Jafarpour M, Faeghi F, Valizade A, Ghafouri M. The Application of Apparent Diffusion Coefficient and Chemical Shift Images in Differentiation of Benign and Malignant Vertebral Lesions. International Journal of Cancer Management. 2018 Jul 31;11(7).
- 31) Janamiri Z, Faeghi F. Evaluation of the Detection Accuracy of Conventional Magnetic Resonance Imaging in Patients Diagnosed with Optic Neuritis. American Journal of Medical Case Reports. 2018 Apr 27;6(4):58-60.
- 32) Janamiri Z, Shahmaei V, Faeghi F. Magnetic Resonance Imaging Evaluation of Neurofibromatosis 1 and 2 Manifestations in Iranian Population. American Journal of Medical Case Reports. 2018;6(3):43-6.
- 33) Abdolmohammadi J, Faeghi F, Arefan D, Zali A, Haghishatkhah H, Amiri J. The Role of Single Voxel MR Spectroscopy, T2 Relaxation Time and Apparent Diffusion Coefficient in Determining the Cellularity of Brain Tumors by MATLAB Software. Asian Pacific journal of cancer prevention: APJCP. 2018;19(10):2891.
- 34) Rezaei S, Faeghi F, Samadian M, Shekarchi B. Preoperative evaluation of tumor adhesion to adjacent brain tissue in patients with meningioma with BSMI method and its comparison with the width of edema around tumor. Asian Pacific Journal of Cancer Prevention: APJCP. 2018;19(7):2007.
- 35) Zare M, Faeghi F, Hosseini A, Ardekani MS, Heidari MH, Zarei E. Comparison between three-dimensional diffusion-weighted PSIF technique and routine imaging sequences in evaluation of peripheral nerves in healthy people. Basic and Clinical Neuroscience. 2018 Jan;9(1):65.
- 36) Borumandnia N, Majd HA, Zayeri F, Baghestani AR, Gohari MR, Tabatabaei SM, Faeghi F. Bayesian 3-Dimensional Spatial Variable Selection Modeling of Voxel-Specific HRFs for Localization in fMRI Time Series Data. Advances and Applications in Statistics. 2017 Dec 1;51(6):397-426.
- 37) Borumandnia N, Alavi Majd H, Zayeri F, Baghestani AR, Faeghi F, Tabatabaei SM. Bayesian spatiotemporal model for detecting of active areas in brain for analyzing of fMRI data. Koomesh. 2017 Oct 10;19(4):845-51.
- 38) Borumandnia N, Majd HA, Zayeri F, Baghestani AR, Tabatabaei M, Faeghi F. Human brain functional connectivity in Resting-State fMRI data across the range of weeks. Middle East Journal of Family Medicine. 2017 Oct 1;7(10):148.
- 39) Farshidfar Z, Faeghi F, Haghishatkhah HR, Abdolmohammadi J. The optimization of magnetic resonance imaging pulse sequences in order to better detection of multiple sclerosis plaques. Journal of Biomedical Physics & Engineering. 2017 Sep;7(3):265.
- 40) Khoei S, Poorabdollahi R, Mostaar A, Faeghi F. Methoxyamine enhances 5-fluorouracil-induced radiosensitization in colon cancer cell line HT29. Cell Journal (Yakhteh). 2017 Jul;19(2):283.
- 41) Alavi Majd H, Faeghi F, Niaghi F, Hajizadeh N. Classification of brain stem glioma tumor grade based on MRI findings using support vector machine. Koomesh. 2017 Jun 10;19(3):584-90.
- 42) Borumandnia N, Majd HA, Zayeri F, Baghestani AR, Tabatabaei SM, Faeghi F. 3-Dimensional Non-Parametric Bayesian Spatiotemporal Model for Brain Activation and Functional Connectivity in fMRI Data. Jp Journal of Biostatistics. 2017 Jun 1;14(1):31-60.

43) Farzadniya A, Faeghi F, Shanehsazzadeh S. Quantitative Effect of Magnetic Field Strength on PEGylated Superparamagnetic Iron Oxide Nanoparticles. *Applied Magnetic Resonance*. 2017 Jun;48:597-607.

44) Naeiji A, Mozdarani H, Monfared AS, Faeghi F, Ahmadi AA, Gholami M, Behzadi R, Momtaz MR. Oral administration of vitamin C, cimetidine and famotidine on micronuclei induced by low dose radiation in mouse bone marrow cells. *Journal of biomedical physics & engineering*. 2017 Jun;7(2):117.

45) Mohammadzadeh A, Faeghi F, Sahraee N, Pouraliakbar H, Kiani R, Mohammadzadeh V, Entezari P, Borhani A, Shakiba M, Kadivar S, Mohammadzadeh M. Diagnostic efficacy of coronary artery three-dimensional steady-state free precession magnetic resonance angiography in comparison with invasive coronary angiography for detecting coronary artery disease. *Archives of Iranian Medicine*. 2017 May 1;20(5):314-9.

46) Abidi Z, Faeghi F, Mardanshahi Z, Mortazavi H. Assessment of the diagnostic accuracy of double inversion recovery sequence compared with FLAIR and T2W_TSE in detection of cerebral multiple sclerosis lesions. *Electronic physician*. 2017 Apr;9(4):4162.

47) Naghibi H, Soroush H, Faeghi F, Shakiba M, Farhoud AR, Hashemi H. Comparison of quantitative assessment of BLADE and isotropic three-dimensional fast spin echo cube (3D T2 SPACE) sequences with conventional protocols of wrist joint at 3 tesla magnetic resonance imaging. *Iranian Journal of Radiology*. 2017 Jan 31;14(1).

48) Hasanzadeh F, Faeghi F, Valizadeh A, Bayani L. Diagnostic value of diffusion weighted magnetic resonance imaging in evaluation of metastatic axillary lymph nodes in a sample of iranian women with breast cancer. *Asian Pacific Journal of Cancer Prevention: APJCP*. 2017;18(5):1265.

49) Davanian F, Faeghi F, Shahzadi S, Farshifar Z. Diffusion tensor imaging for glioma grading: Analysis of fiber density index. *Basic and clinical neuroscience*. 2017 Jan;8(1):13.

50) Abdolmohammadi J, Shafiee M, Faeghi F, Arefan D, Zali A, Motiei-Langroudi R, Farshidfar Z, Nazarlou AK, Tavakkoli A, Yarham M. Determination of intra-axial brain tumors cellularity through the analysis of T2 Relaxation time of brain tumors before surgery using MATLAB software. *Electronic physician*. 2016 Aug;8(8):2726.

51) Shakeri-Boroujeni A, Mozdarani H, Mahmoudzadeh M, Faeghi F. Potent radioprotective effect of herbal immunomodulator drug (IMOD) on mouse bone marrow erythrocytes as assayed with the micronucleus test. *Int J Radiat Res*. 2016 Jul 1;14(3):221-8.

52) Raisi-Nafchi M, Faeghi F, Zali A, Haghhighatkhah H, Jalal-Shokouhi J. Preoperative grading of astrocytic supratentorial brain tumors with diffusion-weighted magnetic resonance imaging and apparent diffusion coefficient. *Iranian Journal of Radiology*. 2016 Jul;13(3).

53) Seyed Abkenari SK, Faeghi F, Arian A. Diagnostic accuracy of diffusion weighted imaging and dynamic imaging techniques in endometrial and lymph nodes cancer staging. *Internal Medicine Today*. 2016 Jun 10;22(3):253-60.

54) Khoei S, Shoja M, Mostaar A, Faeghi F. Effects of resveratrol and methoxyamine on the radiosensitivity of iododeoxyuridine in U87MG glioblastoma cell line. *Experimental Biology and Medicine*. 2016 Jun;241(11):1229-36.

55) Bidar F, Faeghi F, Ghorbani A. Assessment of cerebral venous sinus thrombosis using T2*-weighted gradient echo magnetic resonance imaging sequences.

56) Rabie E, Faeghi F, Izadpanahi MH, Dayani MA. Role of dynamic contrast-enhanced magnetic resonance imaging in staging of bladder cancer. *Journal of clinical and diagnostic research: JCDR*. 2016 Apr;10(4):TC01.

57) Davanian F, Faeghi F, Shahzadi S. The Accuracy of Diffusion Tensor Magnetic Resonance Imaging in Glial Tumors Grading based on Fractional Anisotropy. *Journal of Mazandaran University of Medical Sciences*. 2016 Mar 10;25(134):158-66.

58) Abidi Z, Faeghi F, Mardanshahi Z. Assessment of the diagnostic accuracy of double inversion recovery sequence in comparison with FLAIR and T2W_TSE in detection of brain multiple sclerosis plaques. *European Congress of Radiology-ECR 2016*.

59) Navvabpour N, Faeghi F, Navabpour M. Comparison of metrezoate-labeled gallium transmission with different 50, 60 and 75% concentrations in malignant lymphatic cells.

60) Saberi M, Faeghi F, Ghanaati H, Miri M, Rostamzadeh A, Khodakarim S, Naleini F. Grading of glioma tumors by analysis of minimum apparent diffusion coefficient and maximum relative cerebral blood volume. *Caspian Journal of Neurological Sciences*. 2016 Mar 10;2(1):42-53.

61) Faeghi F, Baniasadipour B, Jalalshokouhi J. Comparative investigation of single voxel magnetic resonance spectroscopy and dynamic contrast enhancement MR imaging in differentiation of benign and malignant breast lesions in a sample of Iranian women. *Asian Pacific Journal of Cancer Prevention*. 2016;16(18):8335-8.

62) Davnian F, Faeghi F, Shahzadi S, Shidfar Z. Evaluation of the Role of Diffusion Tensor Imaging in Grading of Glial Tumors based on Relative Anisotropy. *Journal of Isfahan Medical School*. 2015 Dec 22;33(359):1994-8.

63) Vafaeyan H, Ebrahimzadeh SA, Rahimian N, Alavijeh SK, Madadi A, Faeghi F, Harirchian MH, Rad HS. Quantification of diagnostic biomarkers to detect multiple sclerosis lesions employing 1 H-MRSI at 3T. *Australasian physical & engineering sciences in medicine*. 2015 Dec;38:611-8.

64) Haji Abadian M, Faeghi F, Rostamzadeh A, Motamedi M, Bahrami Motlagh H, Kaffashian MR, Bakhshandepour G. Assessment of Degree of Agreement between Automated and Manual Volumetry for Quantification of Hippocampal Volume on MRI Images of Epileptic Patients. *Journal of Ilam University of Medical Sciences*. 2015 Oct 15;23(4):279-93.

65) Shabani A, Faeghi F, Rostamzadeh A, Jalal-Shokouhi J. The Utility of Diffusion Weighted Magnetic Resonance Imaging in Detection of the Origin of the Brain Solid Metastatic Tumors. *Caspian Journal of Neurological Sciences*. 2015 Oct 10;1(3):19-26.

66) Mohammadi R, Faeghi F, Rostamzadeh A, JalalShokouhi J. Applications of diffusion weighted imaging in detection of radiating pain to lower extremities. *Journal of Basic Research in Medical Sciences*. 2015;2(3):1-9.

67) Kiani Nazarlou A, Faeghi F, Abdkarimi MH, Asghari JafarAbadi M. ADC values in diffusion-weighted MRI and their relationship with age, gender and BMI in healthy people's pancreases. *The British journal of radiology*. 2015 Mar;88(1047):20140449.

68) باقری, اکرم, فائقی, ربانی, مسعود, جباری, کیوان. ارزش تشخیصی تصویربرداری پذیرفتاری مغناطیسی در ترموبوز سینوس‌های ۲۰۱۵ وریدی. *مجله علمی پژوهشی طب داخلی روز*. Sep 10;21(3):189-96.

69) Akbarian Firozabadi N, Faeghi F, Rostamzadeh A, Jalali M, Firoznia K. Application of Diffusion Tensor Imaging in Multiple Sclerosis Patients. *Journal of Ilam University of Medical Sciences*. 2015 Oct 15;23(4):135-47.

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71) Mousavi F, Faeghi F, Javadian H, Haghightkhah H, Oraee-Yazdani S. Evaluating the Origin of the Brain Metastatic Tumors by Using DWI Parameters. *International Clinical Neuroscience Journal*. 2019 Jan 1;6(3):92-7.

72) Farshidfar Z, Faeghi F, Mohseni M, Seddighi A, Kharrazi HH, Abdolmohammadi J. Diffusion tensor tractography can affect treatment strategy to remove brain occupying mass lesions. *Archives of Advances in Biosciences*. 2013 Jun 10;4(3).

73) Aghamiri SM, Mortazavi SM, Razi Z, Mosleh-Shirazi MA, Baradaran-Ghahfarokhi M, Rahmani F, Faeghi F. Ulexite–galena intermediate-weight concrete as a novel design for overcoming space and weight limitations in the construction of efficient shields against neutrons and photons. *Radiation protection dosimetry*. 2013 May 1;154(3):375-80.

74) Pakniat F, Mozdaran H, Nasirian B, Faeghi F. Radioadaptive response in peripheral blood leukocytes of occupationally exposed medical staff with investigation of DNA damage by the use of neutral comet assay. *International Journal of Radiation Research*. 2013 Apr 1;11(2):91.

- 75) Karami G, Oghabian MA, Faeghi F, Tohidnia MR. Effect of phase-encoding reduction on geometric distortion and BOLD signal changes in fMRI. Iranian Journal of Medical Physics. 2012 Dec 1;9(4):275-81.
- 76) Fatahi AJ, Faeghi F, Azimi DF, Dahaz S. Application of Functional Magnetic Resonance Imaging (fMRI) To Display and Evaluate Brain Motor Cortex Activity Pattern During wrist Flexion - Extension Task .Jundishapur Scientific Journal,2008, 7 (257), 205-215

- **List of Supervised MSc Thesis**

• #	Title of Supervised MRI thesis
1	Presurgical determination of intra axial Brain tumors consistency using MATLAB software by the analysis of T2 relaxation time and Apparent Diffusion Coefficient of tumoral tissues. (MSc Student: Jamil Abdolmohammadi).
2	Comparative evaluation and optimization of three pulse sequences :Diffusion -Weighted Imaging, Apparent Diffusion Coefficient map and heavily T2-Weighted Fast Spin-Echo in differential diagnosis of hemangioma from malignant liver lesions. (MSc Student: Faezesadat Khoram).
3	The evaluation of the application of diffusion tensor tractography in presurgical assessment of glial tumor (MSc Student: Zahra Farshidfar).
4	Role of Combining Dynamic Contrast-Enhanced and Diffusion-Weighted MR Images in Differentiation of Benign from Malignant breast Lesion. (MSc Student: Mohammad Yarham)
5	Application of TIC analysis derived from dynamic contrast enhanced breast MR in differential diagnosis of benign from malignant lesions. (MSc Student: Abdollah Valizade).
6	Study of efficiency Magnetic Resonance Spectroscopy and Diffusion-weighted imaging in differentiating primary brain tumors recurrence from radiation. (MSc Student: Seyedeh Bahare Mousavizade).
7	Determining the efficiency of a quantification software technique in proton magnetic resonance spectroscopy after signal correction to study the concentration (MRS) of brain metabolites in MS lesions. (MSc Student: Hamide Vafaean).
8	Role of combing white matter fiber tracking and functional MRI in the perioperative planning of patients with intra axial brain tumors. (MSc Student:Ali Tavakkoli).
9	Studying the Relation of the Age, gender and body mass index with Apparent diffusion coefficient Map calculated with different b-values in normal pancreas (MSc Student: Ali Kiani Nazrlou).
10	Comparison between diffusion weighted images, T2-W and T1w images in assessment of early cartilage injuries of knee joint patients with patellar chondromalacia. (MSc Student:Zeynab Yazdi Sotoude).
11	Assessing accuracy of Free Breathing 1.5 Tesla Whole Heart 3 D Steady State Free Precession Coronary MRA compared with Conventional Angiography. (MSc Student:Nazanin Sahraee).
12	The comparison of diagnostic value of diffusion weighted images with three different b-values (0,1000,2500) for evaluation of stroke at 1.5T.(MSc Student: Amin Adibzade).
13	Comparative evaluation of diagnostic value of SWI pulse sequence and post contrast T1W images in detecting active multiple sclerosis(MS) plaques.(MSc Student: Seyed Hassan Fatehi).
14	Evaluating the accuracy of Contrast Enhanced Dynamic MRI in Staging Bladder Cancer. (MSc Student: Elham Rabiee).
15	Determining the agreement of the optimized Fast Spin Echo pulse sequence using DRIVE pulse in combination with routine MR pulse sequence in evaluation of knee soft tissue pathology (MSc Student: Firouzeh Kazemi).
16	Determination efficiency of magnetic resonance spectroscopy of the thalamus in patients with idiopathic generalized epilepsy (MSc Student: Meysam Mirzaee).
17	Comparative evaluation of magnetic resonance imaging techniques in detection and quantification of liver fat using selective spectral Fat-saturation, In-Phase and out- phase Imaging with MR Spectroscopy. (MSc Student: Sara Valaee Sharif).

18	Checking the origin of the brain solid metastatic tumors by using the diffusion and conventional parameters in MRI. (MSc Student: Arash Shaebani).
19	A comparison of automated volumetry and manual volumetry for quantifying hippocampal volume in epileptic patient. (MSc Student: Mahsa Haji abadian).
20	Comparison of magnetic resonance imaging sequences in better delineation of optic nerve lesion. (MSc Student: Fardis Mosayebian).
21	Evaluating relationship between cognitive impairment in Parkinson's patients and metabolite information obtained from Magnetic Resonance Spectroscopy in a sample of Iranian patients. (MSc Student: Abdolnaser Rostami).
22	Preoperative Grading of Astrocytic Supratentorial Brain Tumors with Diffusion-weighted MR Imaging and Apparent Diffusion Coefficient. (MSc Student: Mahsa Raeesi Nafchi).
23	Application of MRI diffusion and perfusion imaging in determining brain glioma tumor grading. (MSc Student: Mahdiyeh Saberi Derakhtanjani).
24	Treatment response assessment of Glioblastoma Multiforme tumor using DWI, MRS and T2 relaxation time. (MSc Student: Abolfazl Moslemi).
25	comparative investigation of magnetic resonance spectroscopy and Dynamic contrast enhancement MR imaging in differentiation of benign and malignant breast lesions in a sample of iranian women. (MSc Student: Banafshe baniasadi pour).
26	Investigation of correlation between optimal dose of Magnevist contrast agent and parameters of T1 W SE and T1 W FSE and T1W GRE pulse sequences. (MSc Student: Khadijeh Rajabizadeh)
27	The evaluation of the role of diffusion tensor imaging in glial tumors grading based on fractional anisotropy and fiber density index. (MSc Student: Fariba Davanian).
28	The evaluation of diffusion weighted imaging and dynamic contrast enhanced imaging in endometrial cancer and nodal staging. (MSc Student: Seyedeh Kobra Seyed Abkenari).
29	Comparison of qualitative and quantitative assessment of T2 BLADE, PD BLADE,3D T2SPACE sequences with conventional MRI of wrist lesions at 3T. (MSc Student: Seyed Hamed Naghibi).
30	Assessment of cerebral venous sinus thrombosis using T2 *-weighted gradient-echo MRI sequences.(MSc Student: Fatemeh Bidar).
31	Evaluating the correlation of new MR imaging sequence; 3D-MPRAGEIDEAL, SPACE in diagnosis of the new meniscal and cruciate ligaments tearing's. (MSc Student: Seyed Mohammad Hosseini).
32	Comparative assessment of diagnostic accuracy of Diffusion Weighted Imaging (with different b-values) and CE-FLAIR with post injection T1W in diagnosis of active multiple sclerosis plaques. (MSc Student: Fahime Dehghanizadeh).
33	The Comparison of the "FSL" and "3D-Slicer" Softwares' Potencies in the Processing and Visualization of the Diffusion Tensor Imaging Data. (MSc Student: Ali Nahardani).
34	Assessment of diagnostic value of DWI technique in the evaluation of liver fibrosis. (MSc Student: Navid Abdolkarimi).
35	Measurement of Hippocampal Volume in Alzheimer's Disease. (MSc Student: Farzaneh Mardaani).
36	comparative investigation of diffusion weighted imaging with background body signal suppression (DWIBS) and dynamic contrast enhancement MR imaging in breast lesion in a sample of Iranian women.(MSc Student: Fatemeh Asadollahi).
37	Assessment of the diagnostic accuracy of Double Inversion Recovery sequence compared with FLAIR and T2W_TSE in detection of cerebral multiple sclerosis lesion. (MSc Student: Zahra Abidi).

38	assessing the diagnostic value of susceptibility-weighted imaging (SWI) to display the imaging characteristics of brain tumors in comparison to conventional MRI sequences. (MSc Student: Mahdiyeh karami).
39	Evaluating effect of coating molecular weights on the relaxivity of iron oxide nanoparticles. (MSc Student: Amin Farzadnia).
40	Determination of the correlation between level of blood PSA and prostate ADC in the patients with BPH and prostate cancer. (MSc Student: Mojtaba Imanitabar).
41	Evaluating the effect of intravenous administration of gadolinium contrast media on diffusion weighted images and apparent diffusion coefficient maps in brain lesions and normal tissue in a sample of Iranian patients. (MSc Student: Ghazaleh Deljoo).
42	Assessment of the Agreement between 3D Diffusion-Weighted PSIF Technique and the Routine Imaging Sequences in Evaluation of Peripheral Nervous System in Healthy people. (MSc Student: Mahsa Zare Dehabadi).
43	Diagnostic value of DW-MRI in the evaluation of metastatic axillary lymph nodes in patients with breast cancer. (MSc Student: Fereshte Hassanzadeh).
44	Evaluating the accuracy of Diffusion weighted Imaging (DWI) in differentiation of Primary Brain Lymphoma (PBL) from glial tumors. (MSc Student: Zahra Janamiri).
45	Assessment of the agreement between atrial values obtained by Real-Time 3Dimensional Echocardiography and the ventricular myocardial iron overload by T2* weighted MRI in asymptomatic thalassemia major patients. (MSc Student: Seyed Jafar Shoja e Razavi).
46	Role of ADC value to differentiate between recurrent tumors from surgical scar in a sample of Iranian patients with breast cancer. (MSc Student: Masoumeh Torabi).
47	Diagnostic value of DW-MRI in the evaluation of metastatic axillary lymph nodes in patients with breast cancer. MSc Student: Mojgan Jafarppour).
48	Investigating the relationship between signal amplification pattern in apparent diffusion coefficient maps and disease severity in ischemic stroke patients. (MSc Student: Leila Nasirisefat).
49	Evaluation of diagnostic Accuracy of diffusion weighted imaging sequence in comparison with other sequences of multi-parametric imaging for diagnosis of peripheral zone prostate cancer. (MSc Student: Navid Sarmast Alizadeh).
50	Investigating the agreement between radial slices and routine MR images with the findings of clinical examinations in diagnosing the subscapularis tendon tears. (MSc Student: Ali Vejdani).
51	Evaluation of Olfactory Activation patterns in Parkinson's patients compared to healthy subjects using fMRI. MSc Student: Mohammad Shariati).
52	Assessment of the diagnostic value of double inversion recovery (DIR) sequence for evaluation of epileptogenic lesions in comparison with T2 and FLAIR in patients with severe epilepsy. (MSc Student: Leila Souri).
53	Role of apparent diffusion coefficient (ADC) in differentiating between benign and malignant breast lesions. (MSc Student: Pejman Kiani).
54	Evaluation of diagnostic value of T2-weighted Three-dimensional isotropic turbo spin-echo sequence (SPACE) in comparison with T2weighted two-dimensional turbo spin-echo for lumbar spine MRI. MSc Student: Hossein Jomleh).
55	Comparison Of Unenhanced &Enhanced 3D- TOF MRA With Digital Subtraction Angiography Findings In Monitoring Coiled Cerebral Aneurysms. (MSc Student: Meysam Eghbali).
56	Assessment of cognitive disorders in Parkinson disease using of diffusion tensor imaging technique. (MSc Student: Elahe Hosseini).

57	Comparison of MR T2 mapping findings with arthroscopy in detecting of early degenerative changes of the patellofemoral cartilage in chronic injuries of knee anterior cruciate ligament. (MSc Student: Samira Zilghadri).
58	Study of temperature alternations induced by laser irradiation to tissue equivalent gel containing gold nanoparticles through magnetic resonance imaging. (MSc Student: Ali Farashahi).
59	Assessing role of DTI in grading of Glial brain tumors before surgery. (Leila Gholamian Abolfathi).
60	Preoperative evaluation of tumor adhesion to the adjacent brain tissue in patient with meningioma with the use of Brain Surface Motion Imaging (BSMI) technique. (MSc Student: Sonia Rezaee).
61	Evaluating the diagnostic accuracy of combination of morphology, time intensity curve and ADC values in the characterization of non-mass enhancement lesion on Breast MRI. (MSc Student: Zoreh Kaboudanian Ardestani).
62	Prediction of response to neoadjuvant chemotherapy in patients with breast cancer using Apparent Diffusion Coefficient and TIC curve. (MSc Student: Farzaneh Behdad).
63	An assessment of Prostate Cancer Aggressiveness using Quantitative DWI. (MSc Student: Samira Zarnoushe Farahani).
64	Evaluation of diagnostic value of diffusion-weighted imaging in breast cancer: correlation between apparent diffusion coefficient (ADC) values with breast cancer biomarkers. (MSc Student: Reza Kouhi).
65	Diagnostic evaluation of diffusion weighted imaging in differentiation of benign and malignant cervical lymphadenopathy and correlation with pathology results. (MSc Student: Fatemeh Alamolhoda).
66	Diagnostic Value of Double Inversion Recovery Sequence Compared to DCE MRI In Detection of Breast Masses. (MSc Student: Maryam Nourizadeh).
67	Assessment of changes in parameters extracted from Diffusion Tensor Imaging in basal ganglia and thalamus in patients with Parkinson disease. (MSc Student: Mahdiyeh Asadi).
68	Evaluation of iron deposition in brain basal ganglia nuclei of patients with Parkinson's disease using quantitative susceptibility mapping. (MSc Student: Vahid Shahmaei).
69	Investigating the role of MRI sequences on representation of drug effects on brain and related vessels. (Ali Shamoushaki).
70	Diagnostic Evaluation of Multiparametric-MRI for Detection and Localization of Prostate Cancer in the Inner Gland and Correlation with MRI-TRUS Fusion Biopsy Findings. (MSc Student: Zahra Ghane Ezabadi).
71	Evaluation of thalamic nuclei degeneration in patients with Relapsing-Remitting Multiple Sclerosis using DTI and volumetry. (MSc Student: Mehdi Hassanzadeh).
72	Differential diagnosis of liver metastases and hemangiomas by using Diffusion weighted MR imaging. (MSc Student: Salman Safdari).
73	Evaluating the origin of the brain metastatic tumors by using DWI parameter. (MSc Student: Farnoush Sadat Moousavi).
74	Evaluation of the diagnostic value of DWI-STIR and DWI-SPAIR sequences in breast imaging. (MSc Student: Sahand Ghiasi).
75	Assessment of the agreement between atrial values obtained by cardiovascular magnetic resonance and the ventricular myocardial iron overload by T2* weighted MRI in asymptomatic thalassemia major patients. (MSc Student: Emad Shie Ali).

76	Comparative study of NATIVE or IFIR with Contrast Enhance - MRA in assessing renal artery stenosi. (MSc Student: Ebadollah Zafari).
77	Comparative study of the role of magnetic susceptibility imaging before and after contrast agent injection in determining the characteristics of glioblastoma multiforme brain tumors. (Atefe Ghaede Rahmati).
78	The Comparative assessment of Two MR Contrast Agents macrocyclic Gadovist and Dotarem in Diagnosis of Breast cancer in Magnetic Resonance Mammography Exams. (MSc Student: Atena Izadi Dokhrabadi).
79	Assessment of brain metabolite concentration and synaptic level of monoamines (Dopamine, Serotonin) in aspect of psychological disorder in methamphetamine abuse by magnetic resonance spectroscopy. (MSc Student: Javad Sheikhi Kouhsar).
80	Role of Volumetric and Visual Rating System (VRS) of MRI scans in differentiation and Diagnosis of Alzheimer's disease (AD) from VaD and MD (AD – VaD). (MSc Student: Farzaneh Ghabaei).
81	Combination of DCE MRI and ADC mapping using readout segmented EPI in differentiation of benign and malignant breast lesions. (MSc Student: Samaneh Barzegar).
82	Comparing and checking the diagnostic value of two sequences SPACE and VIBE 3D with routine MRI sequences and arthroscopy in the grading of knee cartilage injuries in patients with chronic anterior cruciate ligament tears. (MSc Student: Mohadeseh Shamsi).
83	Importance of Diffusion weighted magnetic resonance imaging in evaluation of the treatment efficacy in multiple sclerosis patients with acute attacks in comparison to routine protocols. (MSc Student: Faeze Asadi).
84	Examining changes in the thickness of the cerebral cortex in Alzheimer's disease in MRI images using Freesurfer software. (MSc Student: Nasim Sattari).
85	Quantitative evaluation of cervical spine damage in patients with multiple sclerosis and its correlation with EDSS using diffusion tensor MR imaging. (MSc Student: Amir Efekhari Moghaddam).
86	Investigating the role of susceptibility weighted imaging for assessment of ischemic penumbra with respect to Venous blood flow in ischemic stroke patients. (MSc Student: Hoda Ebadaati).