Department of Radiology, Asan Medical Center
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Seoul, South Korea

YANGSEAN CHOI, MD

SKILLS

Diagnostic Neuroradiology

PROFESSIONAL AND TEACHING EXPERIENCE

INTERN, CATHOLIC MEDICAL CENTER, SOUTH KOREA

[Mar. 2013 – Feb. 2014]

RADIOLOGY RESIDENT, CATHOLIC MEDICAL CENTER, SOUTH KOREA

[Mar. 2014 – Feb. 2018]

CLINICAL FELLOW IN NEURORADIOLOGY, SEOUL SAINT MARY'S HOSPITAL, SEOUL, SOUTH KOREA

[Mar. 2018 – Feb. 2020]

CLINICAL ASSISTANT PROFESSOR IN NEURORADIOLOGY, SEOUL SAINT MARY'S HOSPITAL, SEOUL, SOUTH KOREA

[Mar. 2020 – Feb. 2023]

CLINICAL ASSISTANT PROFESSOR IN NEURORADIOLOGY, ASAN MEDICAL CENTER, SEOUL, SOUTH KOREA

[Mar. 2023 – current]

EDUCATION

DOCTOR OF MEDICINE, THE CATHOLIC UNIVERSITY OF KOREA, COLLEGE OF MEDICINE, SEOUL, SOUTH KOREA, 2013

MASTER IN MEDICAL SCIENCES, THE CATHOLIC UNIVERSITY OF KOREA, COLLEGE OF MEDICINE, SEOUL, SOUTH KOREA, 2020

DOCTOR OF PHILOSOPHY IN MEDICAL SCIENCES, THE CATHOLIC UNIVERSITY OF KOREA, COLLEGE OF MEDICINE, SEOUL, SOUTH KOREA, 2024

GRANTS

1. 2021-2023: DEVELOPMENT OF PROGNOSTIC MODELS FOR PATIENTS WITH HEAD AND NECK CANCERS USING ADVANCED DIAGNOSTIC IMAGING WITH DEEP LEARNING **(NRF OF KOREA: 2021R1I1A1A01040285), PRINCIPAL INVESTIGATOR**

SKILLSETS

BIOSTATISTICS AND DATA VISUALIZATION USING R

MEDICAL RESEARCH

ACADEMIC MEMBERSHIP ACTIVITIES

MEMBER OF RADIOLOGICAL SOCIETY OF NORTH AMERICA (2022.03 – CURRENT)

MEMBER OF KOREAN SOCIETY OF RADIOLOGY (2014.03 – CURRENT)

MEMBER OF KOREAN SOCIETY OF NEURORADIOLOGY (2018.03 – CURRENT)

MEMBER OF INTERNATIONAL LIASON COMMITTEE OF KOREAN SOCIETY OF RADIOLOGY (2022.09 – CURRENT)

MEMBERSHIP COMMITTEE OF ASIAN-OCEANIAN SOCIETY OF RADIOLOGY (2023.03-CURRENT)

PUBLICATION

GOOGLE SCHOLAR

1ST AUTHOR

1. **Choi Y**, Chung MH, Kim HJ, et al. Aggressive and Multifocal Pulmonary Inflammatory Myofibroblastic Tumor in Young Woman. Journal of the Korean Society of Radiology 2016;75:157-61
2. **Choi Y**, Kim SH, Youn IK, et al. Rim sign and histogram analysis of apparent diffusion coefficient values on diffusion-weighted MRI in triple-negative breast cancer: comparison with ER-positive subtype. PLoS One 2017;12:e0177903
3. **Choi Y**, Ahn K-J, Nam Y, et al. Analysis of heterogeneity of peritumoral T2 hyperintensity in patients with pretreatment glioblastoma: Prognostic value of MRI-based radiomics. European journal of radiology 2019;120:108642
4. **Choi Y**, Ahn KJ, Nam Y, et al. Analysis of peritumoral hyperintensity on pre-operative T2-weighted MR images in glioblastoma: additive prognostic value of Minkowski functionals. Plos one 2019;14:e0217785
5. **Choi Y**, Gil BM, Chung MH, et al. Comparing attenuations of malignant and benign solitary pulmonary nodule using semi-automated region of interest selection on contrast-enhanced CT. Journal of thoracic disease 2019;11:2392
6. **Choi Y**, Hwang E-J, Nam Y, et al. Analysis of apparent diffusion coefficients of the brain in healthy controls: a comparison study between single-shot echo-planar imaging and read-out-segmented echo-planar imaging. Korean Journal of Radiology 2019;20:1138-45
7. **Choi Y**, Jang J, Nam Y, et al. Relationship between abnormal hyperintensity on T2-weighted images around developmental venous anomalies and magnetic susceptibility of their collecting veins: In-vivo quantitative susceptibility mapping study. Korean Journal of Radiology 2019;20:662-70
8. **Choi Y**, Jung SL, Bae J-S, et al. Comparison of efficacy and complications between radiofrequency ablation and repeat surgery in the treatment of locally recurrent thyroid cancers: a single-center propensity score matching study. International Journal of Hyperthermia 2019

9. **Choi Y**, Ahn KJ, Jang J, et al. Prognostic value of computed tomography-based volumetric body composition analysis in patients with head and neck cancer: Feasibility study. Head & Neck 2020;42:2614-25

10. **Choi Y**, Jang J, Kim J, et al. MRI and quantitative magnetic susceptibility maps of the brain after serial administration of gadobutrol: a longitudinal follow-up study. Radiology 2020;297:143-50

11. **Choi Y**, Jung S-L. Efficacy and safety of thermal ablation techniques for the treatment of primary papillary thyroid microcarcinoma: a systematic review and meta-analysis. Thyroid 2020;30:720-31

12. **Choi Y**, Jung S-L, Jang J, et al. CT-based quantitative evaluation of the efficacy after radiofrequency ablation in patients with benign thyroid nodules. International Journal of Hyperthermia 2020;37:742-48

13. **Choi Y**, Lee MK. Neuroimaging findings of brain MRI and CT in patients with COVID-19: a systematic review and meta-analysis. European journal of radiology 2020;133:109393

14. **Choi Y**, Nam Y, **Choi Y**, et al. MRI-visible dilated perivascular spaces in healthy young adults: A twin heritability study. Human brain mapping 2020;41:5313-24

15. **Choi Y**, Nam Y, Jang J, et al. Prediction of human papillomavirus status and overall survival in patients with untreated oropharyngeal squamous cell carcinoma: development and validation of CT-based radiomics. American Journal of Neuroradiology 2020;41:1897-904

16. **Choi Y**, Nam Y, Jang J, et al. Prediction of human papillomavirus status and overall survival in patients with untreated oropharyngeal squamous cell carcinoma: development and validation of CT-based radiomics. American Journal of Neuroradiology 2020;41:1897-904

17. **Choi Y**, Nam Y, Lee YS, et al. IDH1 mutation prediction using MR-based radiomics in glioblastoma: comparison between manual and fully automated deep learning-based approach of tumor segmentation. European Journal of Radiology 2020;128:109031

18. **Choi Y**, Shin N-Y, Jang J, et al. Dual-energy CT for differentiating acute intracranial hemorrhage from contrast staining or calcification: a meta-analysis. Neuroradiology 2020;62:1617-26

19. **Choi Y**, Nam Y, Jang J, et al. Radiomics may increase the prognostic value for survival in glioblastoma patients when combined with conventional clinical and genetic prognostic models. European Radiology 2021;31:2084-93

20. **Choi Y**, Jang J, Kim B, et al. Pretreatment MR-based radiomics in patients with glioblastoma: A systematic review and meta-analysis of prognostic endpoints. European Journal of Radiology. 2023;168:111130. doi: 10.1016/j.ejrad.2023.111130.

21. **Choi Y**, Bang J, Kim S-Y, Seo M, Jang J. Deep learning–based multimodal segmentation of oropharyngeal squamous cell carcinoma on CT and MRI

using self-configuring nnU-Net. Eur Radiol. 2024;34(8):5389–5400. doi: 10.1007/s00330-024-10585-y.

22. **Choi Y,** Ko JS, Park JE, et al. Beyond the Conventional Structural MRI: Clinical Application of Deep Learning Image Reconstruction and Synthetic MRI of the Brain. Invest Radiol. 2025;60(1):27–42. doi: 10.1097/RLI.0000000000001114.

23. **Choi Y**. Leveraging GPT-4 as a Proofreader: Addressing the Growing Workload of Radiologists. Radiology. 2025;314(1):e243859. doi: 10.1148/radiol.243859.

24. **Choi Y**, Jung H-J, Jung H-K, et al. In vivo imaging markers of glymphatic dysfunction in amyotrophic lateral sclerosis: Analysis of ALPS index and choroid plexus volume. Journal of the Neurological Sciences. 2025;469:123393. doi: 10.1016/j.jns.2025.123393.

CORRESPONDING AUTHOR

1. Hur S-J, **Choi Y**, Yoon J, et al. Intraindividual comparison between the contrast-enhanced golden-angle radial sparse parallel sequence and the conventional fat-suppressed contrast-enhanced T1-weighted spin-echo sequence for head and neck MRI. American Journal of Neuroradiology 2021;42:2009-15

2. Kim M-J, **Choi Y**, Sung YE, et al. Early risk-assessment of patients with nasopharyngeal carcinoma: the added prognostic value of MR-based radiomics. Translational Oncology 2021;14:101180

3. Lee M-K, **Choi Y**, Jang J, et al. Identification of the intraparotid facial nerve on MRI: a systematic review and meta-analysis. European Radiology 2021;31:629-39

4. Lee MK, **Choi Y**, Jung S-L. Diffusion-weighted MRI for predicting treatment response in patients with nasopharyngeal carcinoma: a systematic review and meta-analysis. Scientific Reports 2021;11:18986

5. Park K-S, **Choi Y**, Kim J, et al. Prognostic value of MRI-measured tumor thickness in patients with tongue squamous cell carcinoma. Scientific reports 2021;11:11333

6. Yoon J, **Choi Y**, Jang J, et al. Preoperative assessment of cervical lymph node metastases in patients with papillary thyroid carcinoma: Incremental diagnostic value of dual-energy CT combined with ultrasound. Plos one 2021;16:e0261233

7. Kim Y-J, **Choi Y**, Hur S-J, et al. Deep convolutional neural network for classification of thyroid nodules on ultrasound: Comparison of the diagnostic performance with that of radiologists. European Journal of Radiology 2022;152:110335

8. Lee S, **Choi Y**, Seo M-K, et al. Magnetic resonance imaging-based radiomics for the prediction of progression-free survival in patients with

nasopharyngeal carcinoma: A systematic review and meta-analysis. Cancers 2022;14:653

9. Nam Y, **Choi Y**, Kang J, et al. Diagnosis of nasal bone fractures on plain radiographs via convolutional neural networks. Scientific Reports 2022;12:21510

10. Seo M, Yoon J, **Choi Y**, et al. Image Quality of High-Resolution 3-Dimensional Neck MRI Using CAIPIRINHA-VIBE and GRASP-VIBE: An Intraindividual Comparative Study. Investigative Radiology 2022:10-1097

11. Lee MK, **Choi Y**. Correlation between radiologic depth of invasion and pathologic depth of invasion in oral cavity squamous cell carcinoma: A systematic review and meta-analysis. Oral Oncology 2023;136:106249

12. Seo M, **Choi Y**, Soo Lee Y, et al. Glioma grading using multiparametric MRI: head-to-head comparison among dynamic susceptibility contrast, dynamic contrast-enhancement, diffusion-weighted images, and MR spectroscopy. European Journal of Radiology. 2023;165:110888.

13. Nam Y, **Choi Y**, SY Kim, et al. Development and validation of deep learning-based automated detection of cervical lymphadenopathy in patients with lymphoma for treatment response assessment: A bi-institutional feasibility study. Journal of Digital Imaging. 2024; 37: 734-743

14. Ko JS, **Choi Y**, Jeong E, Park JE, Kim HS. Hourly Variations in Glymphatic Function Based on MRI Scan Times in Cognitively Normal Individuals. Academic Radiology. 2025;S1076633225000881. doi: 10.1016/j.acra.2025.01.034. (In-Press)

15. Jung HK, **Choi Y**, Kim S, Nickel D, Park JE, Kim HS. Image quality assessment and white matter hyperintensity quantification in two accelerated high-resolution 3D FLAIR techniques: Wave-CAIPI and deep learning–based SPACE. Clinical Radiology. 2025;82:106783. doi: 10.1016/j.crad.2024.106783.

16. Ko JS, **Choi Y**, Jeong ES, et al. Automated Quantification of Cerebral Microbleeds in SWI: Association with Vascular Risk Factors, White Matter Hyperintensity Burden, and Cognitive Function. AJNR Am J Neuroradiol. 2024;ajnr;ajnr.A8552v2. doi: 10.3174/ajnr.A8552.

REVIEWER

RADIOLOGY

AMERICAN JOURNAL OF RADIOLOGY

-Distinguished Reviewer for the years 2024 & 2025

EUROPEAN JOURNAL OF RADIOLOGY

KOREAN JOURNAL OF RADIOLOGY

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