DAFTAR PUSTAKA

Ak, M., & Colen, R.R. (2023). Radiomics and Radiogenomics in Glioma, in: Faro, S.H., & Mohamed, F.B. (Eds.), *Functional Neuroradiology: Principles and Clinical Applications*. pp. 1313–1321, Cham : Springer International Publishing.

Akkus, Z., Ali, I., Sedlář, J., Agrawal, J.P., Parney, I.F., Giannini, C., *et al.* (2017). Predicting Deletion of Chromosomal Arms 1p/19q in Low-Grade Gliomas from MR Images Using Machine Intelligence. *Journal of Digital Imaging* 30 : 469–476.

Alkhaibary, A., Alassiri, A.H., AlSufiani, F., & Alharbi, M.A. (2019). Ki-67 labeling index in glioblastoma; does it really matter? *Hematology/ Oncology and Stem Cell Therapy* 12 : 82–88.

Andronesi, O.C., Kim, G.S., Gerstner, E., Batchelor, T., Tzika, A.A., Fantin, V.R., *et al.* (2012). Detection of 2-Hydroxyglutarate in IDH -Mutated Glioma Patients by In Vivo Spectral-Editing and 2D Correlation Magnetic Resonance Spectroscopy. *Science Translational Medicine* 4.

Arita, H., Narita, Y., Matsushita, Y., Fukushima, S., Yoshida, A., Takami, H., *et al.* (2015). Development of a robust and sensitive pyrosequencing assay for the detection of IDH1/2 mutations in gliomas. *Brain Tumor Pathology* 32 : 22–30.

Bahrami, N., Hartman, S.J., Chang, Y.-H., Delfanti, R., White, N.S., Karunamuni, R., *et al.* (2018). Molecular classification of patients with grade II/III glioma using quantitative MRI characteristics. *Journal of Neuro-Oncology* 139 : 633–642.

Bakas, S., Akbari, H., Sotiras, A., Bilello, M., Rozycki, M., Kirby, J.S., *et al.* (2017). Advancing The Cancer Genome Atlas glioma MRI collections with expert segmentation labels and radiomic features. *Sci Data* 4 : 170117.

Bent, M.J. van den (2007). Anaplastic Oligodendroglioma and Oligoastrocytoma. *Neurologic Clinics* 25 : 1089–1109.

Bent, M.J. van den, Erdem-Eraslan, L., Idbaih, A., Rooi, J. de, Eilers, P.H.C., Spliet, W.G.M., *et al.* (2013). MGMT -STP27 Methylation Status as Predictive Marker for Response to PCV in Anaplastic Oligodendrogliomas and Oligoastrocytomas. A Report from EORTC Study 26951. *Clinical Cancer Research* 19 : 5513–5522.

Biswas, A., Amirabadi, A., Wagner, M.W., & Ertl-Wagner, B.B. (2022). Features of Visually AcceSAble Rembrandt Images: Interrater Reliability in Pediatric Brain Tumors. *American Journal of Neuroradiology* 43 : 304–308.

Bondy, M.L., Houlston, R.S., Malmer, B., Barnholtz-Sloan, J.S., Davis, F.G., Il'yasova, D., *et al.* (2008). Brain Tumor Epidemiology: Consensus From the Brain Tumor Epidemiology Consortium. *Cancer*.

Cairncross, G., Wang, M., Shaw, E., Jenkins, R., Brachman, D., Buckner, J., *et al.* (2013). Phase III Trial of Chemoradiotherapy for Anaplastic Oligodendroglioma: Long-Term Results of RTOG 9402. *Journal of Clinical Oncology* 31 : 337–343.

Cairncross, J.G., Wang, M., Jenkins, R.B., Shaw, E.G., Giannini, C., Brachman, D.G., *et al.* (2014). Benefit From Procarbazine, Lomustine, and Vincristine in Oligodendroglial Tumors Is Associated With Mutation of IDH. *Journal of Clinical Oncology* 32 : 783–790.

Calabrese, E., Villanueva-Meyer, J.E., & Cha, S. (2020). A fully automated artificial intelligence method for non-invasive, imaging-based identification of genetic alterations in glioblastomas. *Sci Rep* 10 : 11852.

Carrillo, J.A., Lai, A., Nghiemphu, P.L., Kim, H.J., Phillips, H.S., Kharbanda, S., *et al.* (2012). Relationship between Tumor Enhancement, Edema, IDH1 Mutational Status, MGMT Promoter Methylation, and Survival in Glioblastoma. *American Journal of Neuroradiology* 33 : 1349–1355.

Chang, K., Bai, H.X., Zhou, H., Su, C., Bi, W.L., Agbodza, E., *et al.* (2018). Residual Convolutional Neural Network for the Determination of IDH Status in Low- and High-Grade Gliomas from MR Imaging. *Clinical Cancer Research* 24 : 1073–1081.

Chartrand, G., Cheng, P.M., Vorontsov, E., Drozdzal, M., Turcotte, S., Pal, C.J., *et al.* (2017). Deep learning: A primer for radiologists. *Radiographics* 37 : 2113–2131.

Cho, U., Yang, S.H., & Yoo, C. (2021). Estimation of the occurrence rates of IDH1 and IDH2 mutations in gliomas and the reconsideration of IDH-wildtype anaplastic astrocytomas: an institutional experience. *J Int Med Res* 49 : 03000605211019258.

Cohen, A.L., Holmen, S.L., & Colman, H. (2013). IDH1 and IDH2 Mutations in Gliomas. *Current Neurology and Neuroscience Reports* 13 : 345.

Dahlrot, R.H., Bangsø, J.A., Petersen, J.K., Rosager, A.M., Sørensen, M.D., Reifenberger, G., *et al.* (2021). Prognostic role of Ki-67 in glioblastomas excluding contribution from non-neoplastic cells. *Sci Rep* 11 : 17918.

Dang, L., White, D.W., Gross, S., Bennett, B.D., Bittinger, M.A., Driggers, E.M., *et al.* (2009). Cancer-associated IDH1 mutations produce 2-hydroxyglutarate. *Nature* 462 : 739–744.

Deng, L., Xiong, P., Luo, Y., Bu, X., Qian, S., Zhong, W., *et al.* (2018). Association between IDH1/2 mutations and brain glioma grade. *Oncology Letters*.

Drabycz, S., Roldán, G., Robles, P. de, Adler, D., McIntyre, J.B., Magliocco, A.M., *et al.* (2010). An analysis of image texture, tumor location, and MGMT promoter methylation in glioblastoma using magnetic resonance imaging. *NeuroImage* 49 : 1398–1405.

Du, N., Shu, W., Li, K., Deng, Y., Xu, X., Ye, Y., *et al.* (2023). An initial study on the predictive value using multiple MRI characteristics for Ki-67 labeling index in glioma. *J Transl Med* 21 : 119.

Ellingson, B.M., Cloughesy, T.F., Pope, W.B., Zaw, T.M., Phillips, H., Lalezari, S., *et al.* (2012). Anatomic localization of O6-methylguanine DNA methyltransferase (MGMT) promoter methylated and unmethylated tumors: A radiographic study in 358 de novo human glioblastomas. *NeuroImage* 59 : 908–916.

Eoli, M., Menghi, F., Bruzzone, M.G., Simone, T.D., Valletta, L., Pollo, B., *et al.* (2007). Methylation of O 6 -Methylguanine DNA Methyltransferase and Loss of Heterozygosity on 19q and/or 17p Are Overlapping Features of

Secondary Glioblastomas with Prolonged Survival. *Clinical Cancer Research* 13 : 2606–2613.

Esteller, M., Garcia-Foncillas, J., Andion, E., Goodman, S.N., Hidalgo, O.F., Vanaclocha, V., *et al.* (2000). Inactivation of the DNA-Repair Gene MGMT and the Clinical Response of Gliomas to Alkylating Agents. *New England Journal of Medicine* 343 : 1350–1354.

Fedorov, A., Beichel, R., Kalpathy-Cramer, J., Finet, J., Fillion-Robin, J.-C., Pujol, S., *et al.* (2012). 3D Slicer as an image computing platform for the Quantitative Imaging Network. *Magnetic Resonance Imaging* 30 : 1323–1341.

Felini, M., Olshan, A., Schroeder, J., Carozza, S., Miike, R., Rice, T., *et al.* (2009). Reproductive Factors and Hormone Use and Risk of Adult Gliomas. *Cancer Causes Control* 20 : 87–96.

Fellah, S., Caudal, D., Paula, A.M.D., Dory-Lautrec, P., Figarella-Branger, D., Chinot, O., *et al.* (2013). Multimodal MR Imaging (Diffusion, Perfusion, and Spectroscopy): Is It Possible to Distinguish Oligodendroglial Tumor Grade and 1p/19q Codeletion in the Pretherapeutic Diagnosis? *American Journal of Neuroradiology* 34 : 1326–1333.

Gargeya, R., & Leng, T. (2017). Automated Identification of Diabetic Retinopathy Using Deep Learning. *Ophthalmology* 124 : 962–969.

Ghadimi, M., & Sapra, A. (2021). Magnetic Resonance Imaging Contraindications Definition / Introduction, in: *StatPearls*. pp. 1–5, StatPearls Publishing.

Gillies, R.J., Kinahan, P.E., & Hricak, H. (2016). Radiomics: Images Are More than Pictures, They Are Data. *Radiology* 278 : 563–577.

Gladson, C.L., Prayson, R.A., & Liu, W.M. (2010). The pathobiology of glioma tumors. *Annual Review of Pathology: Mechanisms of Disease* 5 : 33–50.

Griethuysen, J.J.M. van, Fedorov, A., Parmar, C., Hosny, A., Aucoin, N., Narayan, V., *et al.* (2017). Computational Radiomics System to Decode the Radiographic Phenotype. *Cancer Research* 77 : e104–e107.

Grover, V.P.B., Tognarelli, J.M., Crossey, M.M.E., Cox, I.J., Taylor-Robinson, S.D., & McPhail, M.J.W. (2015). Magnetic Resonance Imaging: Principles and Techniques: Lessons for Clinicians. *Journal of Clinical and Experimental Hepatology* 5 : 246–255.

Gu, S., Qian, J., Yang, L., Sun, Z., Hu, C., Wang, X., *et al.* (2023). Multiparametric MRI radiomics for the differentiation of brain glial cell hyperplasia from low-grade glioma. *BMC Medical Imaging* 23 : 116.

Gulsen, S. (2015). Achieving Higher Diagnostic Results in Stereotactic Brain Biopsy by Simple and Novel Technique. *Open Access Macedonian Journal of Medical Sciences* 3 : 99–104.

Gutman, D.A., Cooper, L.A.D., Hwang, S.N., Holder, C.A., Gao, J., Aurora, T.D., *et al.* (2013). MR Imaging Predictors of Molecular Profile and Survival: Multi-institutional Study of the TCGA Glioblastoma Data Set. *Radiology* 267 : 560–569.

Han, L., Wang, S., Miao, Y., Shen, H., Guo, Y., Xie, L., *et al.* (2019). MRI texture analysis based on 3D tumor measurement reflects the IDH1 mutations in gliomas – A preliminary study. *European Journal of Radiology* 112 : 169–179.

Han, S., Liu, Y., Cai, S.J., Qian, M., Ding, J., Larion, M., *et al.* (2020). IDH mutation in glioma: molecular mechanisms and potential therapeutic targets. *Br J Cancer* 122 : 1580–1589.

Han, Y., Yan, L.-F., Wang, X.-B., Sun, Y.-Z., Zhang, X., Liu, Z.-C., *et al.* (2018). Structural and advanced imaging in predicting MGMT promoter methylation of primary glioblastoma: a region of interest based analysis. *BMC Cancer* 18 : 215.

Hanif, F., Muzaffar, K., Perveen, K., Malhi, S.M., & Simjee, S.U. (2017). Glioblastoma multiforme: A review of its epidemiology and pathogenesis through clinical presentation and treatment. *Asian Pacific Journal of Cancer Prevention* 18 : 3–9.

Hartmann, C., Hentschel, B., Wick, W., Capper, D., Felsberg, J., Simon, M., *et al.* (2010). Patients with IDH1 wild type anaplastic astrocytomas exhibit worse prognosis than IDH1-mutated glioblastomas, and IDH1 mutation status accounts for the unfavorable prognostic effect of higher age: implications for classification of gliomas. *Acta Neuropathologica* 120 : 707–718.

Hawkins-Daarud, A., Rockne, R.C., Anderson, A.R.A., & Swanson, K.R. (2013). Modeling Tumor-Associated Edema in Gliomas during Anti-Angiogenic Therapy and Its Impact on Imageable Tumor. *Front Oncol* 3 : 66.

He, J., Ren, J., Niu, G., Liu, A., Wu, Q., Xie, S., *et al.* (2022). Multiparametric MR radiomics in brain glioma: models comparation to predict biomarker status. *BMC Medical Imaging* 22 : 137.

Hegi, M.E., Diserens, A.-C., Gorlia, T., Hamou, M.-F., Tribolet, N. de, Weller, M., *et al.* (2005). MGMT Gene Silencing and Benefit from Temozolomide in Glioblastoma. *New England Journal of Medicine* 352 : 997–1003.

Henker, C., Kriesen, T., Glass, Ä., Schneider, B., & Piek, J. (2017). Volumetric quantification of glioblastoma: experiences with different measurement techniques and impact on survival. *Journal of Neuro-Oncology* 135 : 391–402.

Hsieh, K.L.-C., Chen, C.-Y., & Lo, C.-M. (2017). Quantitative glioma grading using transformed gray-scale invariant textures of MRI. *Computers in Biology and Medicine* 83 : 102–108.

Hulley, S.B., Cummings, S.R., Browner, W.S., Grady, D.G., & Newman, T.B. (2007). Designing Clinical Research, 4th ed. Lippincott Williams & Wilkins.

Initiative, G.M.D. (2014). REMBRANDT. *, The Cancer Imaging Archive*.

Ismail, M., Hill, V., Statsevych, V., Huang, R., Prasanna, P., Correa, R., *et al.* (2018). Shape Features of the Lesion Habitat to Differentiate Brain Tumor Progression from Pseudoprogression on Routine Multiparametric MRI: A Multisite Study. *American Journal of Neuroradiology* 39 : 2187–2193.

Jakola, A.S., Zhang, Y.-H., Skjulsvik, A.J., Solheim, O., Bø, H.K., Berntsen, E.M., *et al.* (2018). Quantitative texture analysis in the prediction of IDH status in low-grade gliomas. *Clinical Neurology and Neurosurgery* 164 : 114–120.

Jansen, R.W., Amstel, P. van, Martens, R.M., Kooi, I.E., Wesseling, P., Langen, A.J. de, *et al.* (2018). Non-invasive tumor genotyping using radiogenomic biomarkers, a systematic review and oncology-wide pathway analysis. *Oncotarget* 9 : 20134–20155.

Jenkinson, M.D. (2006). Histological growth patterns and genotype in oligodendroglial tumours: correlation with MRI features. *Brain* 129 : 1884–1891.

Jia, Z., Li, X., Yan, Y., Shen, X., Wang, J., Yang, H., *et al.* (2022). Exploring the relationship between age and prognosis in glioma: rethinking current age stratification. *BMC Neurology* 22 : 350.

Jiang, C., Kong, Z., Liu, S., Feng, S., Zhang, Y., Zhu, R., *et al.* (2019). Fusion Radiomics Features from Conventional MRI Predict MGMT Promoter Methylation Status in Lower Grade Gliomas. *Eur J Radiol* 121 : 108714.

Jie, B., Hongxi, Y., Ankang, G., Yida, W., Guohua, Z., Xiaoyue, M., *et al.* (2022). Radiomics Nomogram Improves the Prediction of Epilepsy in Patients With Gliomas. *Frontiers in Oncology* 12.

Johannessen, A.L., & Torp, S.H. (2006). The clinical value of Ki-67/MIB-1 labeling index in human astrocytomas. *Pathology & Oncology Research* 12 : 143–147.

Kahn, C.E. (1994). Artificial intelligence in radiology: decision support systems. *Radiographics : a review publication of the Radiological Society of North America, Inc* 14 : 849–861.

Karabacak, M., Jagtiani, P., Carrasquilla, A., Germano, I.M., & Margetis, K. (2023). Prognosis Individualized: Survival predictions for WHO grade II and III gliomas with a machine learning-based web application. *npj Digit. Med.* 6 : 1–10.

Kaul, V., Enslin, S., & Gross, S.A. (2020). History of artificial intelligence in medicine. *Gastrointestinal Endoscopy* 92 : 807–812.

Kim, J.W., Park, C.-K., Park, S.-H., Kim, Y.H., Han, J.H., Kim, C.-Y., *et al.* (2011). Relationship between radiological characteristics and combined 1p and 19q deletion in World Health Organization grade III oligodendroglial tumours. *Journal of Neurology, Neurosurgery & Psychiatry* 82 : 224–227.

Kim, M., Kim, S., Park, Y.W., Han, K., Ahn, S.S., Moon, J.H., *et al.* (2022). Sex as a prognostic factor in adult-type diffuse gliomas: an integrated clinical and molecular analysis according to the 2021 WHO classification. *J Neurooncol* 159 : 695–703.

Korfiatis, P., Kline, T.L., Lachance, D.H., Parney, I.F., Buckner, J.C., & Erickson, B.J. (2017). Residual Deep Convolutional Neural Network Predicts MGMT Methylation Status. *Journal of Digital Imaging* 30 : 622–628.

Kuhn & Max (2008). Building Predictive Models in R Using the caret Package. *Journal of Statistical Software* 28 : 1–26.

Lai, A., Kharbanda, S., Pope, W.B., Tran, A., Solis, O.E., Peale, F., *et al.* (2011). Evidence for Sequenced Molecular Evolution of IDH1 Mutant Glioblastoma From a Distinct Cell of Origin. *Journal of Clinical Oncology* 29 : 4482–4490.

Lasocki, A., Anjari, M., Örs Kokurcan, S., & Thust, S.C. (2021). Conventional MRI features of adult diffuse glioma molecular subtypes: a systematic review. *Neuroradiology* 63 : 353–362.

Leather, T., Jenkinson, M., Das, K., & Poptani, H. (2017). Magnetic Resonance Spectroscopy for Detection of 2-Hydroxyglutarate as a Biomarker for IDH Mutation in Gliomas. *Metabolites* 7 : 29.

Li, Y., Qian, Z., Xu, K., Wang, K., Fan, X., Li, S., *et al.* (2017). Radiomic features predict Ki-67 expression level and survival in lower grade gliomas. *Journal of Neuro-Oncology* 135 : 317–324.

Liu, D., Chen, J., Hu, X., Yang, K., Liu, Y., Hu, G., *et al.* (2021). Imaging-Genomics in Glioblastoma: Combining Molecular and Imaging Signatures. *Frontiers in Oncology* 11 : 1–13.

Liu, J., Chen, F., Pan, C., Zhu, M., Zhang, X., Zhang, L., *et al.* (2018). A Cascaded Deep Convolutional Neural Network for Joint Segmentation and Genotype Prediction of Brainstem Gliomas. *IEEE Transactions on Biomedical Engineering* 65 : 1943–1952.

Lotan, E., Jain, R., Razavian, N., Fatterpekar, G.M., & Lui, Y.W. (2019). Applications in Glioma Imaging. *Neuroradiology/Head and Neck Imaging* 1–12.

Louis, D.N., Perry, A., Burger, P., Ellison, D.W., Reifenberger, G., Deimling, A. von, *et al.* (2014). International Society of Neuropathology-Haarlem Consensus Guidelines for Nervous System Tumor Classification and Grading. *Brain Pathology* 24 : 429–435.

Louis, D.N., Perry, A., Reifenberger, G., Deimling, A. von, Figarella-Branger, D., Cavenee, W.K., *et al.* (2016). The 2016 World Health Organization Classification of Tumors of the Central Nervous System: a summary. *Acta Neuropathologica* 131 : 803–820.

Malueka, R.G., Dwianingsih, E.K., Bayuangga, H.F., Panggabean, A.S., Argo, I.W., Donurizki, A.D., *et al.* (2020a). Clinicopathological Features and Prognosis of Indonesian Patients with Gliomas with IDH Mutation: Insights into Its Significance in a Southeast Asian Population. *Asian Pacific Journal of Cancer Prevention* 21 : 2287–2295.

Malueka, R.G., Theresia, E., Fitria, F., Argo, I.W., Donurizki, A.D., Shaleh, S., *et al.* (2020b). Comparison of Polymerase Chain Reaction–Restriction Fragment Length Polymorphism, Immunohistochemistry, and DNA Sequencing for the Detection of IDH1 Mutations in Gliomas. *Asian Pac J Cancer Prev* 21 : 3229–3234.

Manikis, G.C., Ioannidis, G.S., Siakallis, L., Nikiforaki, K., Iv, M., Vozlic, D., *et al.* (2021). Multicenter DSC–MRI-Based Radiomics Predict IDH Mutation in Gliomas. *Cancers* 13.

Mathotaarachchi, S., Pascoal, T.A., Shin, M., Benedet, A.L., Kang, M.S., Beaudry, T., *et al.* (2017). Identifying incipient dementia individuals using machine learning and amyloid imaging. *Neurobiology of Aging* 59 : 80–90.

McIntyre, R., & Goergen, S. (2017). Magnetic Resonance Imaging (MRI). *Inside Radiology*.

Metellus, P., Coulibaly, B., Colin, C., Paula, A.M. de, Vasiljevic, A., Taieb, D., *et al.* (2010). Absence of IDH mutation identifies a novel radiologic and molecular subtype of WHO grade II gliomas with dismal prognosis. *Acta Neuropathologica* 120 : 719–729.

Network, N.T.C.G.A.R. (2015). Comprehensive, Integrative Genomic Analysis of Diffuse Lower-Grade Gliomas. *New England Journal of Medicine* 372 : 2481–2498.

Nicholson, J.G., & Fine, H.A. (2021). Diffuse Glioma Heterogeneity and Its Therapeutic Implications. *Cancer Discov* 11 : 575–590.

Ogbonnaya, C.N., Zhang, X., Alsaedi, B.S.O., Pratt, N., Zhang, Y., Johnston, L., *et al.* (2021). Prediction of Clinically Significant Cancer Using Radiomics Features of Pre-Biopsy of Multiparametric MRI in Men Suspected of Prostate Cancer. *Cancers (Basel)* 13 : 6199.

Ohmura, K., Tomita, H., & Hara, A. (2023). Peritumoral Edema in Gliomas: A Review of Mechanisms and Management. *Biomedicines* 11 : 2731.

Olar, A., Wani, K.M., Alfaro-Munoz, K.D., Heathcock, L.E., Thuijl, H.F. van, Gilbert, M.R., *et al.* (2015). IDH mutation status and role of WHO grade and mitotic index in overall survival in grade II–III diffuse gliomas. *Acta Neuropathologica* 129 : 585–596.

Oronsky, B., Reid, T.R., Oronsky, A., Sandhu, N., & Knox, S.J. (2021). A Review of Newly Diagnosed Glioblastoma. *Frontiers in Oncology* 10 : 1–10.

Ostrom, Q.T., Gittleman, H., Truitt, G., Boscia, A., Kruchko, C., & Barnholtz-Sloan, J.S. (2018). CBTRUS Statistical Report: Primary Brain and Other Central Nervous System Tumors Diagnosed in the United States in 2011–2015. *Neuro-Oncology* 20 : iv1–iv86.

Ostrom, Q.T., Patil, N., Cioffi, G., Waite, K., Kruchko, C., & Barnholtz-Sloan, J.S. (2020). CBTRUS statistical report: Primary brain and other central nervous system tumors diagnosed in the United States in 2013-2017. *Neuro-Oncology* 22 : IV1–IV96.

Park, C.J., Han, K., Kim, H., Ahn, S.S., Choi, D., Park, Y.W., *et al.* (2021). MRI Features May Predict Molecular Features of Glioblastoma in Isocitrate Dehydrogenase Wild-Type Lower-Grade Gliomas. *American Journal of Neuroradiology* 42 : 448–456.

Peng, H., Huo, J., Li, B., Cui, Y., Zhang, H., Zhang, L., *et al.* (2021). Predicting Isocitrate Dehydrogenase (IDH) Mutation Status in Gliomas Using Multiparameter MRI Radiomics Features. *J Magn Reson Imaging* 53 : 1399–1407.

Pérez-Beteta, J., Molina-García, D., Martínez-González, A., Henares-Molina, A., Amo-Salas, M., Luque, B., *et al.* (2019). Morphological MRI-based features provide pretreatment survival prediction in glioblastoma. *European Radiology* 29 : 1968–1977.

QI, S., YU, L., LI, H., OU, Y., QIU, X., DING, Y., *et al.* (2014). Isocitrate dehydrogenase mutation is associated with tumor location and magnetic resonance imaging characteristics in astrocytic neoplasms. *Oncology Letters* 7 : 1895–1902.

Qian, J., Herman, M.G., Brinkmann, D.H., Laack, N.N., Kemp, B.J., Hunt, C.H., *et al.* (2020). Prediction of MGMT Status for Glioblastoma Patients Using Radiomics Feature Extraction from 18F-DOPA-PET Imaging. *Int J Radiat Oncol Biol Phys* 108 : 1339–1346.

Qiu, X., Gao, J., Yang, J., Hu, J., Hu, W., Kong, L., *et al.* (2020). A Comparison Study of Machine Learning (Random Survival Forest) and Classic Statistic (Cox Proportional Hazards) for Predicting Progression in High-Grade Glioma after Proton and Carbon Ion Radiotherapy. *Frontiers in Oncology* 10.

R Core Team (2023). R: A Language and Environment for Statistical Computing. Vienna, Austria : R Foundation for Statistical Computing.

Rajaratnam, V., Islam, M.M., Yang, M., Slaby, R., Ramirez, H.M., & Mirza, S.P. (2020). Glioblastoma : Pathogenesis and Current Status of. *Cancers* 12 : 1–28.

Ranjith, G., Parvathy, R., Vikas, V., Chandrasekharan, K., & Nair, S. (2015). Machine learning methods for the classification of gliomas: Initial results using features extracted from MR spectroscopy. *The Neuroradiology Journal* 28 : 106–111.

Rasmussen, B.K., Hansen, S., Laursen, R.J., Kosteljanetz, M., Schultz, H., Nørgård, B.M., *et al.* (2017). Epidemiology of glioma: clinical characteristics, symptoms, and predictors of glioma patients grade I–IV in the the Danish Neuro-Oncology Registry. *Journal of Neuro-Oncology* 135 : 571–579.

Rasuli, B., & Gaillard, F. (2018). Glioblastoma. *Radiopaedia*.

Rohle, D., Popovici-Muller, J., Palaskas, N., Turcan, S., Grommes, C., Campos, C., *et al.* (2013). An Inhibitor of Mutant IDH1 Delays Growth and Promotes Differentiation of Glioma Cells. *Science* 340 : 626–630.

RStudio Team (2020). RStudio: Integrated Development Environment for R. Boston, MA : RStudio, PBC.

Rudie, J.D., Rauschecker, A.M., Bryan, R.N., Davatzikos, C., & Mohan, S. (2019). Emerging Applications of Artificial Intelligence in Neuro-Oncology. *Radiology* 290 : 607–618.

Sacli-Bilmez, B., Firat, Z., Topcuoglu, O.M., Yaltirik, K., Ture, U., & Ozturk-Isik, E. (2023). Identifying overall survival in 98 glioblastomas using VASARI features at 3T. *Clin Imaging* 93 : 86–92.

Sahara, N., Hartanto, R., Yoshuantari, N., Dananjoyo, K., Widodo, I., Malueka, R., *et al.* (2021). Diagnostic Accuracy of Immunohistochemistry in Detecting MGMT Methylation Status in Patients with Glioma. *Asian Pacific Journal of Cancer Prevention* 22 : 3803–3808.

Sakai, Y., Yang, C., Kihira, S., Tsankova, N., Khan, F., Hormigo, A., *et al.* (2020). MRI Radiomic Features to Predict IDH1 Mutation Status in Gliomas: A Machine Learning Approach using Gradient Tree Boosting. *Int J Mol Sci* 21 : 8004.

Sastroasmoro, S., & Ismael, S. (2011). Dasar-Dasar Metodologi Penelitian Klinis, 4th ed. Sagung Seto.

Seow, P., Wong, J.H.D., Ahmad-Annuar, A., Mahajan, A., Abdullah, N.A., & Ramli, N. (2018). Quantitative magnetic resonance imaging and radiogenomic biomarkers for glioma characterisation: A systematic review. *British Journal of Radiology* 91.

Shen, G., Wang, R., Gao, B., Zhang, Z., Wu, G., & Pope, W. (2020). The MRI Features and Prognosis of Gliomas Associated With IDH1 Mutation: A Single Center Study in Southwest China. *Frontiers in Oncology* 10.

Singh, G., Manjila, S., Sakla, N., True, A., Wardeh, A.H., Beig, N., *et al.* (2021). Radiomics and radiogenomics in gliomas: a contemporary update. *British Journal of Cancer*.

Skogen, K., Schulz, A., Dormagen, J.B., Ganeshan, B., Helseth, E., & Server, A. (2016). Diagnostic performance of texture analysis on MRI in grading cerebral gliomas. *European Journal of Radiology* 85 : 824–829.

Smith, J.S., Perry, A., Borell, T.J., Lee, H.K., O'Fallon, J., Hosek, S.M., *et al.* (2000). Alterations of Chromosome Arms 1p and 19q as Predictors of

Survival in Oligodendrogliomas, Astrocytomas, and Mixed Oligoastrocytomas. *Journal of Clinical Oncology* 18 : 636–636.

Smits, A., Lysiak, M., Magnusson, A., Rosell, J., Söderkvist, P., & Malmström, A. (2021). Sex Disparities in MGMT Promoter Methylation and Survival in Glioblastoma: Further Evidence from Clinical Cohorts. *J Clin Med* 10 : 556.

Smits, M., & Bent, M.J.V.D. (2017). Imaging correlates of adult glioma genotypes. *Radiology* 284 : 316–331.

Soni, N., Priya, S., & Bathla, G. (2019). Texture Analysis in Cerebral Gliomas: A Review of the Literature. *American Journal of Neuroradiology* 40 : 928–934.

Sotoudeh, H., Shafaat, O., Bernstock, J.D., Brooks, M.D., Elsayed, G.A., Chen, J.A., *et al.* (2019). Artificial intelligence in the management of glioma: Era of personalized medicine. *Frontiers in Oncology* 9 : 1–11.

Su, C.-Q., Lu, S.-S., Han, Q.-Y., Zhou, M.-D., & Hong, X. (2018). Intergrating Conventional MRI, Texture Analysis of Dynamic Contrast-Enhanced MRI, and Susceptibility Weighted Imaging for Glioma Grading. *Acta Radiologica*.

Suárez-García, J.G., Hernández-López, J.M., Moreno-Barbosa, E., & Celis-Alonso, B. de (2020). A simple model for glioma grading based on texture analysis applied to conventional brain MRI. *PLOS ONE* 15 : e0228972.

Sun, X., Pang, P., Lou, L., Feng, Q., Ding, Z., & Zhou, J. (2020). Radiomic prediction models for the level of Ki-67 and p53 in glioma. *J Int Med Res* 48 : 300060520914466.

TCIA (2020). VASARI Research Project. *The Cancer Genome Atlas*.

Theresia, E., Malueka, R.G., Pranacipta, S., Kameswari, B., Dananjoyo, K., Asmedi, A., *et al.* (2020). Association between Ki-67 Labeling index and Histopathological Grading of Glioma in Indonesian Population. *Asian Pacific Journal of Cancer Prevention* 21 : 1063–1068.

Tian, Q., Yan, L.-F., Zhang, Xi, Zhang, Xin, Hu, Y.-C., Han, Y., *et al.* (2018). Radiomics strategy for glioma grading using texture features from multiparametric MRI. *Journal of Magnetic Resonance Imaging* 48 : 1518–1528.

Tsai, L.L., Grant, A.K., Mortele, K.J., Kung, J.W., & Smith, M.P. (2015). A practical guide to MR imaging safety: What radiologists need to know. *Radiographics* 35 : 1722–1737.

Usinskiene, J., Ulyte, A., Bjørnerud, A., Venius, J., Katsaros, V.K., Rynkeviciene, R., *et al.* (2016). Optimal differentiation of high- and low-grade glioma and metastasis: a meta-analysis of perfusion, diffusion, and spectroscopy metrics. *Neuroradiology* 58 : 339–350.

Vasudevan, P., & Murugesan, T. (2018). Cancer Subtype Discovery Using Prognosis-Enhanced Neural Network Classifier in Multigenomic Data. *Technology in Cancer Research & Treatment* 17 : 153303381879050.

Villanueva-Meyer, J.E., Mabray, M.C., & Cha, S. (2017). Current clinical brain tumor imaging. *Clinical Neurosurgery* 81 : 397–415.

Wang, H.-Y., Tang, K., Liang, T.-Y., Zhang, W.-Z., Li, J.-Y., Wang, W., *et al.* (2016). The comparison of clinical and biological characteristics between IDH1 and IDH2 mutations in gliomas. *J Exp Clin Cancer Res* 35 : 86.

Wang, L., Li, Z., Liu, C., Chen, L., Liu, L., Hu, Z., *et al.* (2017). Comparative assessment of three methods to analyze MGMT methylation status in a series of 350 gliomas and gangliogliomas. *Pathology - Research and Practice* 213 : 1489–1493.

Wang, Y., Fan, X., Zhang, C., Zhang, T., Peng, X., Li, S., *et al.* (2014). Anatomical specificity of O6-methylguanine DNA methyltransferase protein expression in glioblastomas. *Journal of Neuro-Oncology* 120 : 331–337.

Wei, R.-L., & Wei, X.-T. (2021). Advanced Diagnosis of Glioma by Using Emerging Magnetic Resonance Sequences. *Frontiers in Oncology* 11.

Weller, M., Stupp, R., Hegi, M.E., Bent, M. van den, Tonn, J.C., Sanson, M., *et al.* (2012). Personalized care in neuro-oncology coming of age: why we need MGMT and 1p/19q testing for malignant glioma patients in clinical practice. *Neuro-Oncology* 14 : iv100–iv108.

Wick, W., Platten, M., Meisner, C., Felsberg, J., Tabatabai, G., Simon, M., *et al.* (2012). Temozolomide chemotherapy alone versus radiotherapy alone for malignant astrocytoma in the elderly: the NOA-08 randomised, phase 3 trial. *The Lancet Oncology* 13 : 707–715.

Wu, C.-C., Guo, W.-Y., Chen, M.-H., Ho, D.M.T., Hung, A.S.C., & Chung, H.-W. (2012). Direct measurement of the signal intensity of diffusion-weighted magnetic resonance imaging for preoperative grading and treatment guidance for brain gliomas. *Journal of the Chinese Medical Association* 75 : 581–588.

Wu, J., Qian, Z., Tao, L., Yin, J., Ding, S., Zhang, Y., *et al.* (2015). Resting state fMRI feature-based cerebral glioma grading by support vector machine. *International Journal of Computer Assisted Radiology and Surgery* 10 : 1167–1174.

Wu, S., Meng, J., Yu, Q., Li, P., & Fu, S. (2019). Radiomics-based machine learning methods for isocitrate dehydrogenase genotype prediction of diffuse gliomas. *Journal of Cancer Research and Clinical Oncology* 145 : 543–550.

Xi, Y., Guo, F., Xu, Z., Li, C., Wei, W., Tian, P., *et al.* (2018). Radiomics signature: A potential biomarker for the prediction of MGMT promoter methylation in glioblastoma. *Journal of Magnetic Resonance Imaging* 47 : 1380–1387.

Xie, T., Chen, X., Fang, J., Kang, H., Xue, W., Tong, H., *et al.* (2018). Textural features of dynamic contrast-enhanced MRI derived model-free and model-based parameter maps in glioma grading. *Journal of Magnetic Resonance Imaging* 47 : 1099–1111.

Yan, H., Parsons, D.W., Jin, G., McLendon, R., Rasheed, B.A., Yuan, W., *et al.* (2009). IDH1 and IDH2 Mutations in Gliomas. *New England Journal of Medicine* 360 : 765–773.

Yang, Y., Yan, L.-F., Zhang, X., Han, Y., Nan, H.-Y., Hu, Y.-C., *et al.* (2018). Glioma Grading on Conventional MR Images: A Deep Learning Study With Transfer Learning. *Frontiers in Neuroscience* 12.

Young, J.D., Cai, C., & Lu, X. (2017). Unsupervised deep learning reveals prognostically relevant subtypes of glioblastoma. *BMC Bioinformatics* 18 : 381.

Zhang, B., Chang, K., Ramkissoon, S., Tanguturi, S., Bi, W.L., Reardon, D.A., *et al.* (2017). Multimodal MRI features predict isocitrate dehydrogenase genotype in high-grade gliomas. *Neuro-Oncology* 19 : 109–117.

Zhang, J., Liu, H., Tong, H., Wang, S., Yang, Y., Liu, G., *et al.* (2017). Clinical Applications of Contrast-Enhanced Perfusion MRI Techniques in Gliomas: Recent Advances and Current Challenges. *Contrast Media & Molecular Imaging* 2017 : 1–27.

Zhang, L., He, L., Lugano, R., Roodakker, K., Bergqvist, M., Smits, A., *et al.* (2018). IDH mutation status is associated with distinct vascular gene expression signatures in lower-grade gliomas. *Neuro-Oncology* 20 : 1505–1516.

Zhang, L., Liu, X., Xu, X., Liu, W., Jia, Y., Chen, W., *et al.* (2023). An integrative non-invasive malignant brain tumors classification and Ki-67 labeling index prediction pipeline with radiomics approach. *Eur J Radiol* 158 : 110639.

Zhang, Xi, Tian, Q., Wu, Y.-X., Xu, X.-P., Li, B.-J., Liu, Y.-X., *et al.* (2017). IDH mutation assessment of glioma using texture features of multimodal MR images, in: Armato, S.G., & Petrick, N.A. (Eds.), . p. 101341S.

Zhang, Xin, Yan, L.-F., Hu, Y.-C., Li, G., Yang, Y., Han, Y., *et al.* (2017). Optimizing a machine learning based glioma grading system using multi-parametric MRI histogram and texture features. *Oncotarget* 8 : 47816–47830.

Zhao, F., Fan, H., Shan, K., Zhou, L., Pang, Z., Fu, C., *et al.* (2022). Predictive Efficacy of a Radiomics Random Forest Model for Identifying Pathological Subtypes of Lung Adenocarcinoma Presenting as Ground-Glass Nodules. *Frontiers in Oncology* 12.

Zhou, M., Scott, J., Chaudhury, B., Hall, L., Goldgof, D., Yeom, K.W., *et al.* (2018). Radiomics in Brain Tumor: Image Assessment, Quantitative Feature Descriptors, and Machine-Learning Approaches. *American Journal of Neuroradiology* 39 : 208–216.

Zwanenburg, A., Vallières, M., Abdalah, M.A., Aerts, H.J.W.L., Andrearczyk, V., Apte, A., *et al.* (2020). The Image Biomarker Standardization Initiative: Standardized Quantitative Radiomics for High-Throughput Image-based Phenotyping. *Radiology* 295 : 328–338.