

Results GFP immunohistochemistry and qPCR showed stronger transduction profiles in the parietal cortex in the CPA cohort compared to CM and modest increase of GFP in the dorsal midbrain. Strong immunoreactivity was also observed in the ventral aspect of the cingulate gyrus. Vector genome quantification of different brain structures showed comparable results between CPA and CM injection routes.

Conclusion CPA delivery of AAV9 resulted in increased transduction of the parietal and cingulate cortex, comparable to that observed with CM injections. Provided is preliminary evidence that CPA infusion of gene therapy is safe and provides widespread distribution throughout the brain.

Disclosure of Interest AM, CH, BB: Cerevasc

HB, VA, EH, aL, RK, HG: Nothing to disclose

MG: No relevant disclosures

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ABSORBABLE GELATIN COMPRESSED SPONGE (GELFOAM) EMBOLIZATION OF DISTAL EXTERNAL CAROTID ARTERY BRANCHES IN INTRA-ARTERIAL CHEMOTHERAPY FOR RETINOBLASTOMA

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10.1136/jnis-2023-ESMINT.141

Introduction In intra-arterial chemotherapy for retinoblastoma, a backflow from unreachable external carotid artery branches in the ophthalmic artery can be challenging.

Aim of Study We describe a novel endovascular technique using Gelfoam[®] pledgets to occlude temporarily those distal external carotid artery branches to halt this competitive backflow.

Methods We queried our prospectively collected database of 327 consecutive patients treated for retinoblastoma by intra-arterial chemotherapy and identified those employing Gelfoam[®] pledgets. We describe this new technique with emphasis on feasibility and safety.

Results We treated 11 eyes with 14 infusions of intra-arterial chemotherapy using Gelfoam[®] pledgets to occlude the distal branches of the external carotid artery. We report no perioperative complications due to this occlusion technique. At the ophthalmologic follow-up one month after the injection of Gelfoam[®] pledgets, all cases showed tumor regression or stable disease. Two injections into the same eye as the rescue intra-arterial chemotherapy infusion resulted in a transient exudative retinal detachment, and one injection in a heavily pre-treated case was followed by iris neovascularization and retinal ischemia. None of the pledget injections led to irreversible vision-threatening intraocular complications.

Conclusion Intra-arterial chemotherapy in retinoblastoma using Gelfoam[®] to transiently occlude the distal branches of the external carotid artery and reverse the backflow into the ophthalmic artery seems feasible and safe. Larger series will help to confirm the effectiveness of this new technique.

Disclosure of Interest Nothing to disclose

P112/92

THE CURRENT DIAGNOSTIC PERFORMANCE OF MRI-BASED RADIOMICS FOR GLIOMA GRADING

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10.1136/jnis-2023-ESMINT.142

Introduction Multiple radiomics-based models have been proposed for glioma grading with different magnetic resonance imaging sequences, models, and features.

Aim of Study Given the heterogeneity and rapid expansion of radiomics for glioma grading, we aimed to better define the overall performance of these different techniques.

Methods We conducted a systematic review of the literature and a meta-analysis of studies reporting on radiomics for glioma-grade prediction. A comprehensive literature search of the databases PubMed, Ovid MEDLINE, and Ovid EMBASE was designed and conducted by an experienced librarian with input from the authors. We estimated overall sensitivity (SEN) and specificity (SPE). Event rates were pooled across studies using a random-effects meta-analysis, and the χ^2 test was performed to assess the heterogeneity.

Results Overall SEN and SPE for differentiation between low-grade glioma (LGG) and high-grade glioma (HGG) were 91% and 84%, respectively. As for the discrimination task between WHO grade III and WHO grade IV, the overall SEN was 89% and the overall SPE was 81%. There is a better trend for modern non-linear classifiers while textural features are the most used and the best-performing (28.6%).

Conclusion The current diagnostic performance of radiomics for glioma grading is higher for the LGGs vs. HGGs discrimination task than the WHO grade III vs. IV task, both in terms of SEN and SPE. In the forthcoming years, we expect even more precise models, especially for the LGGs vs. HGGs categorization.

Disclosure of Interest Nothing to disclose

0113/97

SINGLE CENTER EXPERIENCE WITH 253 NEUROLINTERVENTIONS PERFORMED WITH RIST RADIAL ACCESS SYSTEM

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10.1136/jnis-2023-ESMINT.143

Introduction Transradial access (TRA) for endovascular procedures has gained popularity in neurointerventional society. The RIST 079 Radial Access System (Medtronic) is the first available device dedicated to TRA. To the best of our knowledge, we present the largest cohort of patients treated with RIST TRA.

Aim of Study To evaluate the application, safety, and limitations of the RIST catheter.

Methods Neurointerventional procedures in a single institution from April 2021 to April 2023 with TRA with RIST catheter