



Abstract O28 Figure 1

On POD 2 the patient experienced a non-ST-elevation Myocardial Infarction. PCI was performed and a DES was implanted. The patient completed his 90 days follow-up visit demonstrating mRS 0 with no reported adverse events.

Disclosure of Interest no.

Other

3.5. Miscellaneous

O29

PERCUTANEOUS RADIOFREQUENCY ABLATION OF PAINFUL SPINAL METASTASIS: AN UPDATED SYSTEMATIC REVIEW OF ANALGESIA AND SAFETY

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Introduction Radiofrequency ablation(RFA) is a minimally invasive technique for managing pain from spinal metastases. However, long-term data on its effectiveness and safety remain limited.

Aim of Study To systematically review the analgesic effectiveness and safety of RFA for spinal metastases.

Methods A systematic search and analysis were conducted following PRISMA guidelines. Studies were included if they met the following criteria:

Randomized or non-randomized studies with at least 3 patients (prospective or retrospective)

Adult patients with spinal metastases

RFA used alone or combined with other treatments

Reported pre- and post-RFA pain assessments

Published in English

Data on demographics, tumor type, lesion location, pain scores, and complications were extracted.

Results The search yielded 33 studies encompassing 1418 patients(52.6% females) with 1902 treated lesions. All studies reported achieving partial pain response based on International Consensus Endpoint after Radiation Therapy criteria. 91% of studies showed highly effective pain management(≥ 4 -point reduction on a pain scale to the last follow-up). Moderate effectiveness(≥ 2 -point reduction) was reported in the

remaining 3 studies(9%). Lung(28.2%), breast(25.4%)and genitourinary system(11.2%) cancers were the most common primary tumors. The thoracic spine was the most frequent site (47.9), followed by lumbar(47.3%) and sacral(4.5%). No major complications(grade IV-V) were observed. Minor to grade IIIa neurological complications requiring conservative management occurred in 0-16% of patients.

Conclusion This systematic review suggests that RFA, often used in combination with vertebral augmentation, represents a safe and effective treatment for achieving short- to mid-term (24 hours to 6 months) pain control in patients with spinal metastases.

Disclosure of Interest no.

3.1. Innovation

O30

EFFECTIVE RADIATION DOSE REDUCTION IN DIAGNOSTIC CEREBRAL ANGIOGRAPHY USING OPTIQ AND DISEASE-SPECIFIC PROTOCOLS

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Introduction We have continuously tried various protocol adjustments, including the adoption of low-dose 2D and 3D rotational digital subtraction angiography (DSA), aimed at minimizing radiation exposure during cerebral angiography procedures. And recently used the OPTIQ, an advanced 2D imaging pipeline, automatically adjusts exposure parameters to maintain predefined image quality during cerebral angiography while aiming to reduce radiation dose.

Aim of Study This study assesses the effectiveness of OPTIQ and customized angiographic protocols for different cerebral vascular pathologies.

Methods A review was conducted on 465 diagnostic cerebral angiographies performed between August 2023 and January 2024. Angiography was done with utilization of three dose level of angiographic protocols (low-, mid-, and high-dose), customized for indication including aneurysm-diagnostic, treated aneurysm-follow-up, stenooclusive disease, AVM/AVF. We analyzed radiation metrics such as dose-area product (DAP), air-kerma (AK), and examined imaging parameters tailored to each vascular condition. (Table 1)

Abstract O30 Table 1

	2D DSA			3D RA			
	Low (IQ36)	Mid (IQ63)	High (IQ90)	0.10 µGy/f (single)	0.17 µGy/f (dual)	0.24 µGy/f (single / dual)	4D DSA or DCTmicro
AN_Dx	+++		+	+++		+	
AN_FU	+++		+	+		+++	++
AVM/AVF/Tumor		+++	+		+++*		++
Stenosis	++	++	+	+++		+	+/+

Abstract O30 Table 2

	Aneurysm Dx (n=319)	Aneurysm FU (n=61)	Steno-occlusive disease (n=51)	AVM AVF (n=34)	TOTAL (n=465)	Ihn et al. (2021)
DAP(Gy*cm ²)	19.7±10.1	38.8±16.7	35.8±13.6	75.7±30.4	28.1±20.7	78.0±43
AK(mGy)	188.2±91.9	434.4±178.1	244.5±103.5	425.1±158.9	244.0±149.2	541.5±333.2
Fluoroscopy (min)	7.9±5.1	9.4±6.2	11.4±4.3	16.6±7.7	9.1±5.9	10.4±6.4
Vessels	3.2±0.6	3.1±0.7	4.8±1.3	5.6±1.1	3.5±1.1	
No. of Rotation	2.1±0.5	3.8±1.3	1.3±2.5	5.5±2.7	2.6±1.4	

Results The results demonstrated significant radiation reductions across all procedures, with the lowest radiation exposures observed in aneurysm diagnostics (DAP 19.7 ± 10.1 Gy*cm², AK 0.188 ± 0.092 Gy). Although conditions like arteriovenous malformations (AVM) and arteriovenous fistulas (AVF) recorded higher metrics, they were considerably lower than historical averages for these procedures. (Table 2)

Conclusion The strategic application of OPTIQ and disease-specific protocols has effectively reduced radiation doses for diagnostic cerebral angiography.

Disclosure of Interest no.

031

CONTINUOUS EVALUATION OF THE ESMINT/EYMINT E-FELLOWSHIP: IMPACT OF A NEW NON-FIXED MENTOR TO FELLOW ALLOCATION DURING THE FOURTH SEASON OF THE PROGRAM ON THE EDUCATIONAL OUTCOME

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Introduction The EYMINT e-fellowship was launched in 2020 to foster neurointerventional training and has since enrolled 98 fellows to remotely observe cases by telestreaming. Evaluation identified the fixed allocation of a fellow and mentor as

limiting factor to reach a sufficient case load. The program has therefore been modified to expose fellows to all telestreamed cases. It is hypothesized that this increases the cases observed by a fellow and hence the educational outcome.

Aim of Study Assessment of case volume and procedural knowledge improvement per fellow.

Methods Prospective evaluation of telestreamed cases from 02 - 08/2024 via questionnaires.

Results While seasons 1-3 had an average of 166 cases with a fixed fellow-mentor allocation, the current season 4 is based on a non-fixed allocation. A case triggers an alarm to all fellows using a dedicated smartphone app, which then participate on a time-available basis. The proctor (defined as the fellow who is able to directly speak to the treating interventionalist) is being selected on a first-come first-served basis, and channels questions to the treating interventionalist to minimize distraction from the large audience. Interim analysis points to a stable number of transmitted cases (50 within the first 8 weeks), but increased numbers of fellows per case (mean 7.3, SD +/- 4.6, range 0 - 18). Case variety is similar to previous seasons with equal distribution of hemorrhagic and ischemic cases.

Conclusion Tele-observerships may improve from a non-fixed mentoring. Further analysis is needed to clarify if the increased case exposition outweighs the reduced personal mentoring during the training process.

Disclosure of Interest no.