computed tomography. The new detectors calculate the energy of every single photon and provide CT Data with high spatial resolution without electric noise at lower radiation dose. This CT-imaging evolution has several advantages for neuroimaging. Here we focus on intracranial and extracranial implants such as stents and coils.

Aim of Study To visualize endovascular intracranial and cervical implants with Photon Counting Computed Tomography.

Methods **Ultra-high resolution CT**-Angiography and native head CT as well as spectral reconstruction after placement of neuro-endovascular implants.

Results The imaging of the implants is very precise and reliable.

Conclusion The results of the imaging of neuro-endovascular implants are precise and reliable. The UHR CT-angiography and spectral reconstructions might be beneficial to monitor treatment success.

Disclosure of Interest no.

P157 DOSE COMPARISON OF CT IN ANGIO SUITE AND CT PHOTON – COUNTING

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Introduction The possibility of applying a CT scan during the operation enables the surgeon to control the positioning of the implants. The postoperative control of the implants with the photon counting technology gives the opportunity for a very precise imaging. These two techniques deliver a quite different dose to the patient.

Aim of Study With this abstract, we would be able to see the relation between the doses of these two techniques in the same patient

Methods Comparing the dose reports of the same patient with these two different CTs, first in the Angio suite and the second as post-OP. Comparing the image quality of these methods.

Results The results of the imaging of neuro-endovascular implants are from both techniques reliable. The PCCT-angiography has a higher radiation dose but is also beneficial to monitor treatment success.

Conclusion The CT in the Angio suite gives an immediate and accurate first impression of the surgery, despite of the lower dose.

Disclosure of Interest no.

3.1. Innovation

P158 ENDOSCOPIC-ASSISTED MICROVASCULAR DECOMPRESSION FOR HEMIFACIAL SPASMS ASSOCIATED WITH VERTEBROBASILAR DOLICHOECTASIA: A META-ANALYSIS

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Introduction HFS primarily attributed to neurovascular compression at the root exit zone (REZ) of the CNVII, presents significant challenges in diagnosis and management. While Microscopic MVD remains gold standard treatment, its efficacy in cases involving vertebrobasilar dolichoectasia (VBD) is less explored.

Aim of Study This systematic review aims to evaluate the safety and efficacy of endoscopic-assisted MVD (E-MVD) specifically in HFS secondary to VBD.

Methods A comprehensive search done using MeSH keywords 'Endoscopic', 'Microvascular Decompression', 'Vertebral Artery', 'Hemifacial spasm', across multiple databases. Following PRISMA guidelines we identified six studies comprising 69 patients.

Results Mean age was 53.63 years with female predominance. E-MVD demonstrated an 84.06% complete resolution rate, with partial resolution in 8.70% and no relief in 7.25% of cases. Transient facial palsy was the primary postoperative complication. Following factors poses increased risk for comorbidities/post-operative complications: age $\geq$ 60 years old (4.2500), male (1.1905), AICA involvement (3.7037) and left sided involvement (1.5750).

Comparison with traditional microscopic MVD reveals comparable success rates, with E-MVD offering enhanced visualization and potential reductions in complications. Challenges related to vertebral artery involvement and complex compression patterns are addressed more effectively with endoscopic techniques.

Conclusion E-MVD presents a promising alternative for managing HFS secondary to VBD, offering high success rates and potential reductions in complications compared to traditional approaches. Continued research efforts and surgeon training are essential to optimize outcomes and refine techniques in the evolving field of endoscopic neurosurgery.

Disclosure of Interest no.

P159 CLOTILD® A SMART GUIDEWIRE SENSING CLOT CHARACTERISTICS DURING EVT – RESULTS FROM THE CLOT OUT STUDY

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Introduction Mechanical thrombectomy has revolutionized the treatment of large-vessel ischemic stroke. In-situ thrombus features, such as thrombus composition, length and the resulting mechanical properties play a critical role in the success of endovascular treatment.

Aim of Study Sensome has developed the Clotild® Smart Guidewire System (CSGS), a 0.014' neurovascular guidewire integrating an impedance micro-sensor in its distal part, allowing to probe the impedance properties of the occlusion causing the ischemic stroke during endovascular treatment. These properties can be analyzed using machine-learning algorithms with the aim to determine in-situ thrombus features. The CLOT OUT Study aims to evaluate the safety and ability of CSGS to provide impedance measurements.

Methods In this single arm, prospective, multi-center first-in-human study the Clotild® Smart Guidewire was used for