To compare the use of magnetic resonance (MR)/MR myelography (MRM) with conventional myelography/post-myelography CT (convM) for detailed surgery planning in degenerative lumbar disease. METHODS: Twenty-six patients with suspected complex lumbar degenerative disease underwent MRM in addition to convM as preoperative workup. Surgery was planned based on convM-as usual at our department. Post hoc, surgical planning was repeated planned again-now based on MRM. Furthermore, the MRM-based planning was performed by six independent neurosurgeons (three groups) of different degrees of specialisation. RESULTS: In only 31 % of the patients, post hoc MRM-based planning resulted in the same surgical decision as originally performed, whereas in 69 % (n = 18) a different procedure was indicated. In patients with non-concurring convM- and MRM-based surgical plans, a less extended procedure was the result of MRM in six patients (23 %), a more extended one in five (19 %), and a related to side/level of decompression or nucleotomy different plan in six patients (23 %). In one patient (4 %), the MRM-based planning would have led to a completely different surgery compared to convM. Overall interobserver agreement on the MRM-based planning was substantial. CONCLUSIONS: Detailed planning of operative procedures for complex lumbar degenerative disease is highly dependent on the image modality used [1)].

1)
Shiban E, von Lehe M, Simon M, Clusmann H, Heinrich P, Ringel F, Wilhelm K, Urbach H, Meyer B, Stoffel M. Evaluation of degenerative disease of the lumbar spine: MR/MR myelography versus conventional myelography/post-myelography CT. Acta Neurochir (Wien). 2016 Aug;158(8):1571-8. doi: 10.1007/s00701-016-2849-6. Epub 2016 Jun 2. PubMed PMID: 27255654.