

MR Neurography-guided Percutaneous Pelvic Injection Procedures

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Purpose

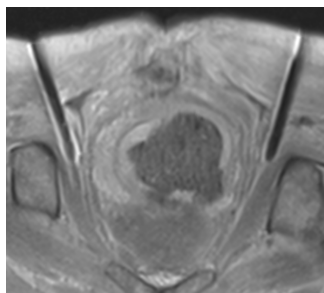
1. To review the spectrum of pelvic pain syndromes
2. To demonstrate the pertinent MR neurography anatomy relevant to percutaneous injection procedures
3. To illustrate MR-guided injection techniques of a variety of targets in the pelvis

Outline of Content

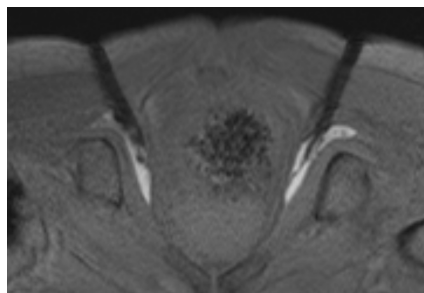
- Description of the spectrum of pelvic pain syndromes including pudendal nerve entrapment syndrome, obturator neuropathy, coccydynia, piriformis syndrome, meralgia paresthetica syndrome, posterior femoral cutaneous neuropathy.
- Relevant high-resolution MR neurography anatomy of the lumbosacral plexus and its branches.
- Pertinent principles of interventional MR imaging including needle visualization, artifact behavior and fluoroscopic MR imaging.
- MR-guided injection case examples, including pudendal nerve injections (figure set), obturator nerve injections, ganglion impar injections, piriformis muscle injections, sciatic nerve injections, hypogastric plexus injections, lateral femoral cutaneous nerve injections, posterior femoral cutaneous nerve injections

Summary

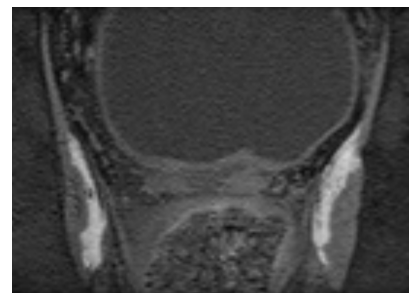
1. MR Neurography-guided percutaneous injection techniques can be used for a variety of complex diagnostic and therapeutic pelvic injection procedures.
2. This technique is especially suited for the direct MR visualization of deeply situated nerves, which are difficult to target with other imaging modalities such as ultrasound.
3. MR neurography guidance favorably combines the direct visualization of the regional nerve targets, the objective assessment of the distribution of the injectant in relation to the target and the absence of ionizing radiation.



Needles in the pudendal canal bilaterally



MR-fluoroscopic monitoring of pudendal injections



Coronal T2 showing the injectant in the pudendal canals