Minimally invasive lumbar spinal canal stenosis treatment

Several minimally invasive procedures have expanded the treatment options.

Using the Institute of Medicine (IOM) clinical practice guidelines for 2011, a group of nationally recognized spine experts was convened and charged with creating clinical practice guidelines for Minimally Invasive Spinal Treatment (MIST)¹⁾.

The Lumbar Spinal Stenosis Consensus Group convened to evaluate the peer-reviewed literature as the basis for making Minimally Invasive Spine Treatment (MIST) recommendations. Eleven consensus points were clearly defined with evidence strength, recommendation grade, and consensus level using United States Preventive Services Task Force (USPSTF) criteria. The Consensus Group also created a treatment algorithm. Literature searches found 9 studies (2 randomized controlled trials or RCTs; 7 observational studies, 4 prospective and 3 retrospective) of minimally invasive spine treatments, and 1 RCT for spacers.

The LSS treatment choice is dependent on the degree, spinal or anatomic level, and architecture of the stenosis, the severity of the symptoms, failed, past, less-invasive treatments, previous fusions or other open surgical approaches, and patient comorbidities. There is Level I evidence for percutaneous image-guided lumbar decompression (PILD) as superior to lumbar epidural steroid injection, and 1 RCT supporting spacer use in a non-inferiority study comparing 2 spacer products currently available.

Minimally invasive spine treatments should be used in a judicious and algorithmic fashion to treat LSS, based on the evidence of efficacy and safety in the peer-reviewed literature. The MIST Consensus Group recommend that these procedures be used in a multimodal fashion as part of an evidence-based decision algorithm ²⁾.

see Minimally Invasive Lumbar Laminectomy.

1)

Institute of Medicine. Clinical Practice Guidelines We Can Trust. Washington DC; IOM: 2011

Deer TR, Grider JS, Pope JE, Falowski S, Lamer TJ, Calodney A, Provenzano DA, Sayed D, Lee E, Wahezi SE, Kim C, Hunter C, Gupta M, Benyamin R, Chopko B, Demesmin D, Diwan S, Gharibo C, Kapural L, Kloth D, Klagges BD, Harned M, Simopoulos T, McJunkin T, Carlson JD, Rosenquist RW, Lubenow TR, Mekhail N. The MIST Guidelines: The Lumbar Spinal Stenosis Consensus Group Guidelines for Minimally Invasive Spine Treatment. Pain Pract. 2018 Oct 27. doi: 10.1111/papr.12744. [Epub ahead of print] PubMed PMID: 30369003.

