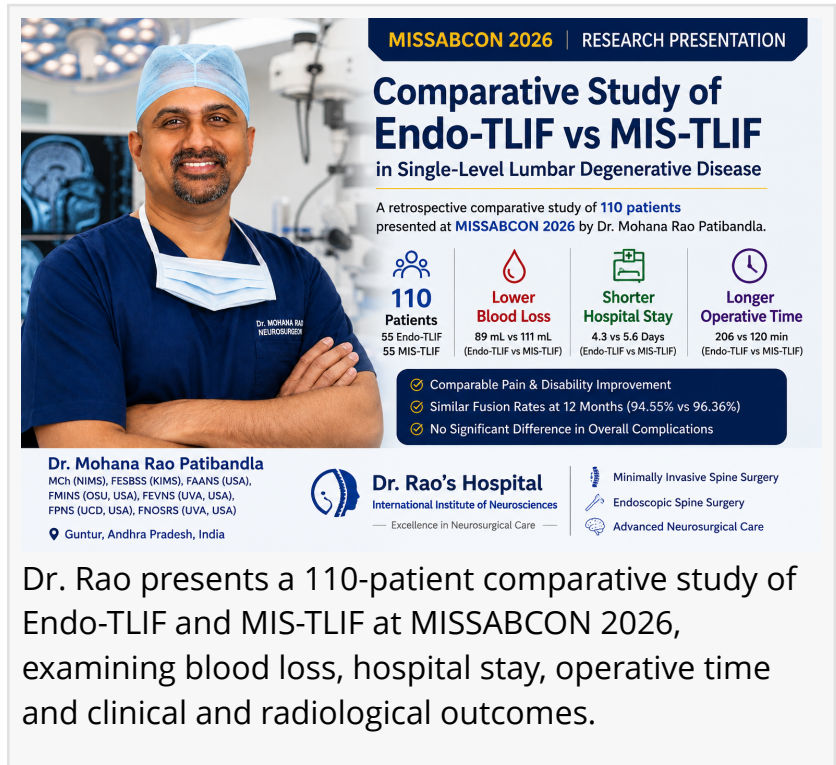


Dr. Mohana Rao Patibandla Presents Comparative Endo-TLIF vs MIS-TLIF Study at MISSABCON 2026

110-patient Guntur study examines blood loss, hospital stay, operative time, pain, disability, fusion and complications in minimally invasive lumbar fusion

GUNTUR, ANDHRA PRADESH, INDIA, August 18, 2026 /EINPresswire.com/ -- Research from Guntur comparing two minimally invasive approaches to [lumbar fusion](#) was presented by Dr. Mohana Rao Patibandla (Dr. Rao) at MISSABCON 2026, examining clinical and radiological outcomes of endoscopic transforaminal lumbar interbody fusion (Endo-TLIF) and minimally invasive transforaminal lumbar interbody fusion (MIS-TLIF).



MISSABCON 2026 | RESEARCH PRESENTATION

Comparative Study of Endo-TLIF vs MIS-TLIF in Single-Level Lumbar Degenerative Disease

A retrospective comparative study of **110 patients** presented at **MISSABCON 2026** by Dr. Mohana Rao Patibandla.

Icon	Category	Endo-TLIF	MIS-TLIF
110 Patients	Patients	55 Endo-TLIF	55 MIS-TLIF
Lower Blood Loss	Blood Loss	89 mL	111 mL
Shorter Hospital Stay	Hospital Stay	4.3 vs 5.6 Days	(Endo-TLIF vs MIS-TLIF)
Longer Operative Time	Operative Time	206 vs 120 min	(Endo-TLIF vs MIS-TLIF)

- Comparable Pain & Disability Improvement
- Similar Fusion Rates at 12 Months (94.55% vs 96.36%)
- No Significant Difference in Overall Complications

Dr. Mohana Rao Patibandla
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Dr. Rao's Hospital
International Institute of Neurosciences
Excellence in Neurosurgical Care

- Minimally Invasive Spine Surgery
- Endoscopic Spine Surgery
- Advanced Neurosurgical Care

Dr. Rao presents a 110-patient comparative study of Endo-TLIF and MIS-TLIF at MISSABCON 2026, examining blood loss, hospital stay, operative time and clinical and radiological outcomes.

The retrospective comparative study included 110 patients with single-level lumbar degenerative disease, with 55 patients undergoing Endo-TLIF and 55 undergoing MIS-TLIF. The researchers evaluated perioperative, clinical and radiological outcomes.

The research addresses an increasingly important question in modern spine surgery: when two minimally invasive techniques can achieve the same fundamental surgical objective, what are the practical differences in recovery, surgical demands and outcomes?

Different Advantages and Trade-Offs

The study found that the Endo-TLIF group had significantly lower blood loss and a shorter hospital stay.

Mean blood loss was approximately 89 mL with Endo-TLIF compared with 111 mL with MIS-TLIF, while mean hospitalisation was approximately 4.3 days compared with 5.6 days, respectively.

However, the findings also demonstrated important trade-offs.

Mean operative time was significantly longer with Endo-TLIF—approximately 206 minutes compared with 120 minutes for MIS-TLIF. X-ray exposure was also higher in the Endo-TLIF group, with approximately 41 exposures compared with 27.

According to the study, both techniques produced significant improvements in pain and disability measures following surgery. Long-term clinical outcomes were comparable between the groups at the reported follow-up points.

Comparable Fusion Outcomes

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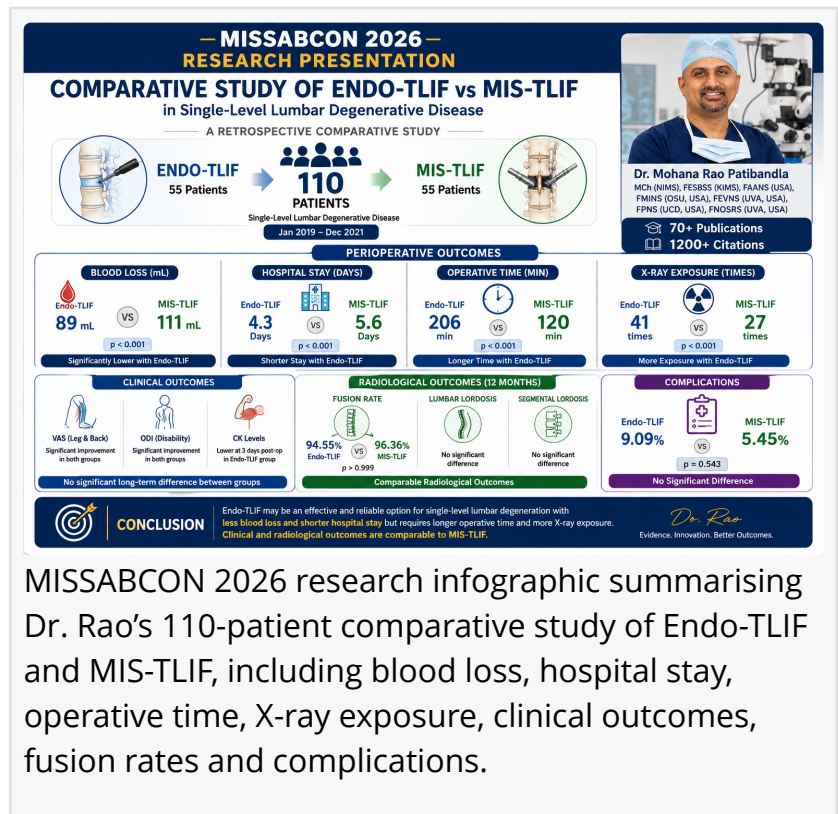
Innovation in spine surgery should be guided by evidence. The important question is not which technique is newer, but which approach is appropriate for each patient.”

*Dr. Mohana Rao Patibandla,
Neurosurgeon & Founder, Dr.
Rao's Hospital*

What the Findings Mean

The research does not suggest that one minimally invasive technique is universally superior.

Instead, the findings indicate that both Endo-TLIF and MIS-TLIF can provide comparable clinical



MISSABCON 2026 research infographic summarising Dr. Rao's 110-patient comparative study of Endo-TLIF and MIS-TLIF, including blood loss, hospital stay, operative time, X-ray exposure, clinical outcomes, fusion rates and complications.

Radiological assessment showed comparable results between the two groups.

At 12 months, the reported fusion rate was 94.55% for Endo-TLIF and 96.36% for MIS-TLIF, with no statistically significant difference. Other measured radiological parameters, including lumbar and segmental lordosis and disc height, also showed no significant differences between groups.

The study also found no statistically significant difference in overall complications. The reported complication rate was 9.09% in the Endo-TLIF group and 5.45% in the MIS-TLIF group.

and radiological outcomes in appropriately selected patients, while having different perioperative advantages and technical demands.

The study's conclusion states that Endo-TLIF may be considered an effective and reliable treatment option for single-level lumbar degeneration, with less trauma and faster postoperative recovery, while requiring longer operative time and greater X-ray exposure. Clinical and radiological outcomes were reported as comparable with MIS-TLIF.

"Innovation in spine surgery should be guided by evidence. The important question is not simply which technique is newer, but which approach is appropriate for the individual patient and what the available data tell us about its benefits and limitations," said Dr. Rao.

Research-Driven Spine Surgery

The presentation reflects the increasing role of comparative clinical research in [minimally invasive spine surgery](#). As surgeons gain access to multiple surgical approaches, systematic comparison becomes important for understanding where each technique may offer advantages.

The study presented at MISSABCON 2026 provides comparative data across blood loss, hospitalisation, operative time, radiation exposure, pain, disability, fusion and complications.

For patients, the findings reinforce the importance of individualised surgical decision-making.



Dr. Rao presents his comparative research on Endo-TLIF versus MIS-TLIF at MISSABCON 2026, examining outcomes of minimally invasive lumbar fusion in patients with single-level lumbar degenerative disease.



The advanced biplane cath lab at Dr. Rao's Hospital, designed for precision neurovascular procedures and minimally invasive surgeries, first in Andhra Pradesh and Telangana in India.

The appropriate procedure depends on the patient's diagnosis, anatomy, symptoms, imaging findings, overall health and the surgeon's assessment of the risks and expected benefits.

The research adds to the ongoing scientific discussion about how minimally invasive spine surgery can continue to evolve while maintaining attention to clinical outcomes and patient safety.

About Dr. Mohana Rao Patibandla

Dr. Mohana Rao Patibandla (Dr. Rao) is Founder, CMD and Chief Neurosurgeon of Dr. Rao's Hospital – International Institute of Neurosciences (IIN), Guntur, Andhra Pradesh, India.

His clinical and academic interests include minimally invasive brain and spine surgery, endoscopic surgery, skull-base surgery, cerebrovascular and endovascular neurosurgery, neuro-oncology, pediatric neurosurgery, stereotactic radiosurgery and intraoperative neurophysiological monitoring.

The conference presentation lists his advanced fellowship training in minimally invasive neurosurgery and endoscopic skull-base surgery at Ohio State University, endovascular neurosurgery and neuro-oncology/radiosurgery at the University of Virginia, and pediatric neurosurgery at Nationwide Children's Hospital and the University of Colorado.

The presentation also lists 70 national and international publications and more than 1,200 citations.

About Dr. Rao's Hospital – International Institute of Neurosciences

Dr. Rao's Hospital – International Institute of Neurosciences (IIN) is a specialised neuroscience centre in Guntur, Andhra Pradesh, providing care for brain, spine and nervous-system disorders, with a focus on advanced neurosurgical treatment, minimally invasive procedures and clinical research.

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