

# Percutaneous full endoscopic foraminotomy for treatment of cervical spinal nerve compression in horses using a uniportal approach: Feasibility study

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## Products

Minimally invasive endoscopic foraminotomy for cervical spinal nerve decompression.

## Hospital / Authors

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## Clinical Background

Cervical spinal nerve compression in horses often results from osteoarthritis-related articular process (AP) enlargement. It can cause lameness and neurological deficits. Minimally invasive endoscopic foraminotomy offers a new surgical approach to relieve nerve compression with reduced trauma compared to traditional techniques.

## Aim of Study

To assess the feasibility of percutaneous full endoscopic foraminotomy in horses with cervical spinal nerve compression, evaluating surgical technique and clinical outcomes.

## Cohort Study

The technique was tested on three equine cadavers before being performed on two clinical cases with forelimb lameness linked to cervical nerve compression. The horses underwent fluoroscopically guided endoscopic decompression, with postoperative monitoring for recovery and symptom resolution.

[Link to paper](#)

## Results

- Foraminotomy performed in **cadavers** and **clinical cases** showed feasibility and safety.
- CT imaging confirmed **nerve compression**, guiding precise surgical access.
- **Surgical time** averaged 98 minutes, with smooth recovery.
- At 12-month follow-up, both horses remained **sound** with no recurrence.
- **Minimally invasive** approach reduced trauma and allowed rapid recovery.
- **No major complications** observed, demonstrating procedure safety.

## Summary

- Endoscopic **foraminotomy** is a viable technique for spinal nerve decompression.
- **CT imaging** is essential for diagnosis and surgical planning.
- Surgery led to **long-term resolution** of clinical signs.
- **Minimally invasive** method allows for targeted nerve decompression.
- More **research** is needed before widespread use.
- **Early intervention** may improve outcomes in severe cases.