

K. Van Meensel (1) , D. Vanhauwaert MD, PhD (1,2) , W. Maenhoudt MD (1) , S. Du Four MD, PhD (1,2) , O. Van Damme MD (1), Q. Verhalleman MD (3) , B. Regaert MD (4) , J. Van Lerbeirghe MD (1)

(1) Department of neurosurgery, AZ Delta, Roeselare-Menen-Torhout, Belgium

(2) Department of Human Structure and Repair, Ghent University

(3) Department of radiology, AZ Delta, Roeselare-Menen-Torhout, Belgium

(4) Department of neurosurgery, Sint-Andries Hospital, Tielt, Belgium

## Introduction

Spinal arachnoid cysts in adults are rare lesions of unclear etiology that may cause pain or myelopathy.<sup>(1)</sup> Surgical decompression is recommended in symptomatic cases, yet the optimal surgical strategy remains controversial.<sup>(2)</sup> We describe a minimally invasive CT-guided transforaminal puncture and cyst obliteration technique for the treatment of a symptomatic cervical arachnoid cyst.

## Material & methods

A 72-year-old female presented with right-sided C7 radiculopathy without neurological deficits. Cervical MRI revealed an extensive epidural cystic lesion, consistent with an arachnoid cyst, extending from C2–C3 to C6–C7 with right-sided predominance. To identify the site of cerebrospinal fluid (CSF) leakage, CT myelography was performed following a fluoroscopy-guided lumbar puncture at L3–L4, with intrathecal injection of 10 cc iodinated contrast. Rapid extradural leakage was observed at the C6 level with cranial extension. Subsequently, a CT-guided puncture and cyst obliteration was performed. CT angiography of the neck was obtained to assess vertebral artery anatomy. A right-sided anterolateral transforaminal approach was selected. Under local anesthesia and CT guidance, 6 cc of CSF was aspirated, followed by obliteration using fibrin sealant (Tisseel®, Baxter, IL, USA). Post-procedural CT confirmed adequate distribution of the sealing material.

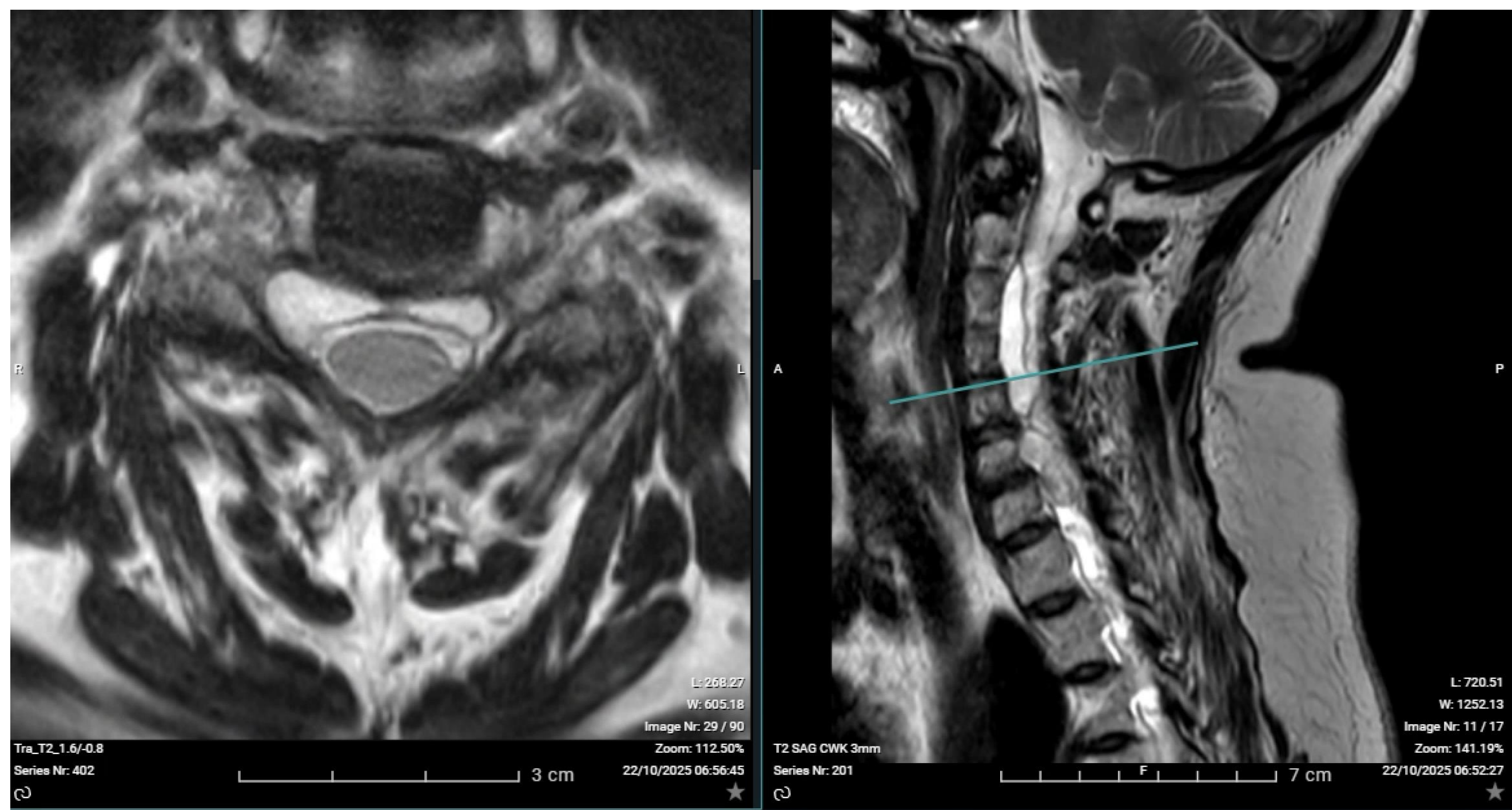


Figure 1 – Cervical MRI showing an extensive epidural cystic lesion, consistent with an arachnoid cyst, extending from C2–C3 to C6–C7 with right-sided predominance

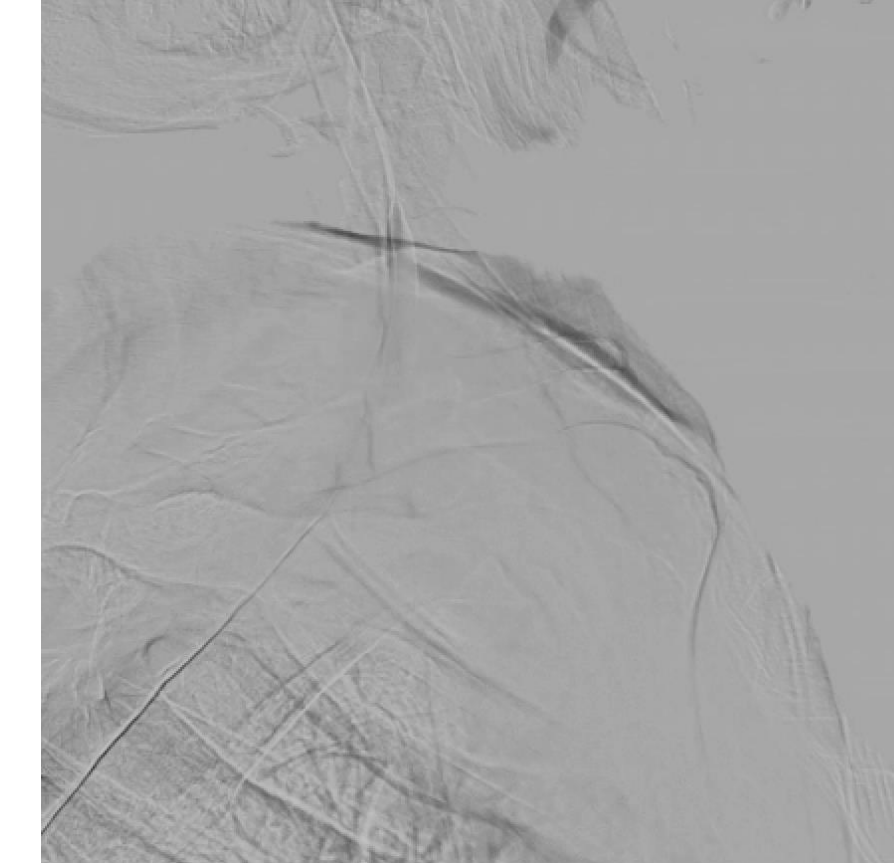


Figure 3 – Fluoroscopic myelography showing a rapid extradural leakage at the C6 level with cranial extension. Scan QR-code to watch.



Figure 4 – CT-guided transforaminal puncture and cyst obliteration with the injection of a fibrin sealant (Tisseel®, Baxter, IL, USA). Scan QR-code to watch.

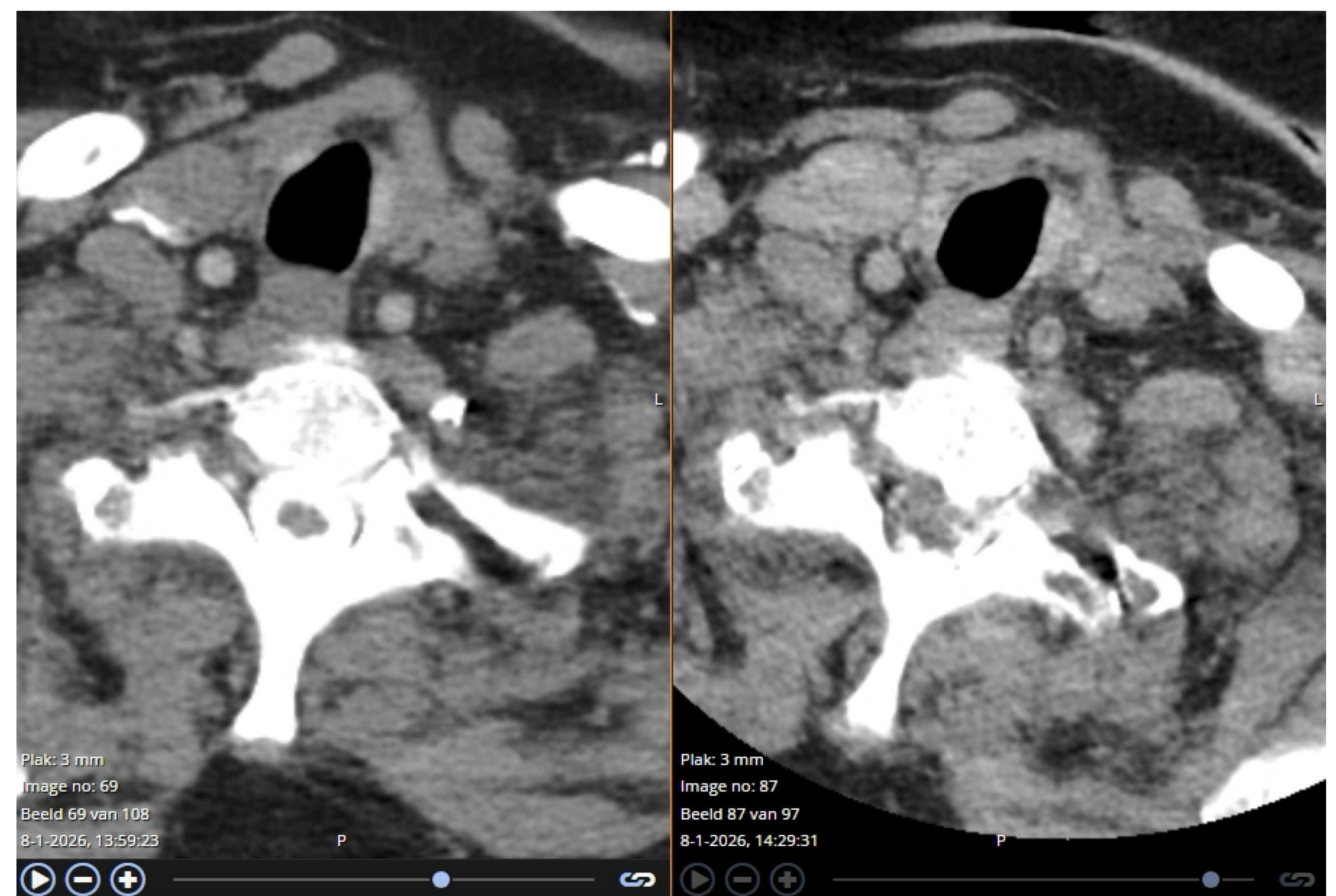


Figure 5 – Pre- (left) and post-procedure (right) CT, showing an adequate distribution of the sealing material.

## Results

The patient experienced immediate resolution of the right-sided C7 radiculopathy. A mild chemical meningitis occurred, resulting in a four-day hospital stay, and was successfully treated conservatively.

## Conclusion

CT-guided transforaminal puncture and cyst obliteration may be a safe and effective minimally invasive alternative for selected patients with symptomatic cervical arachnoid cysts.

### References

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