

Approach to internal carotid artery dissection with proximal embolic protection device

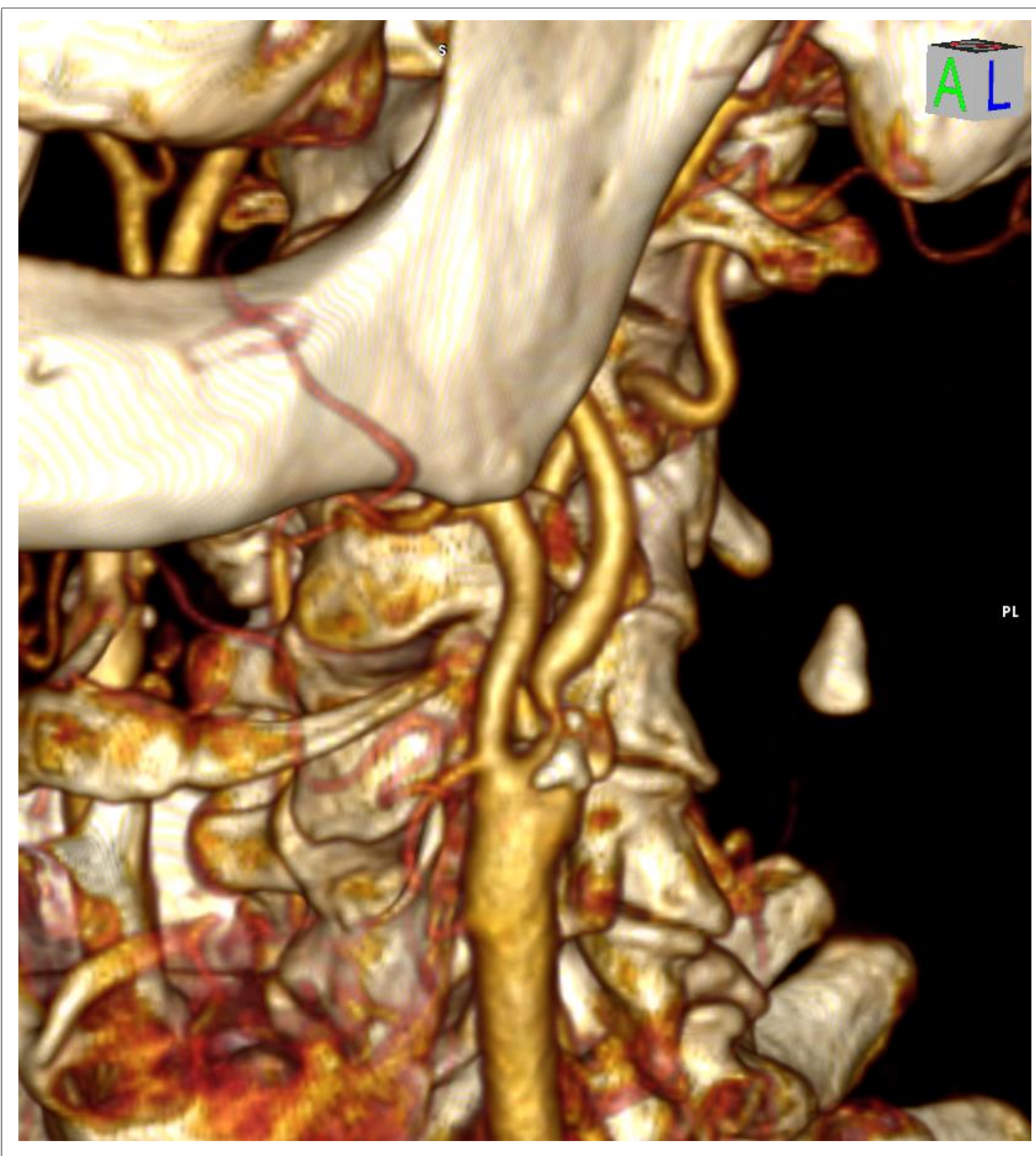
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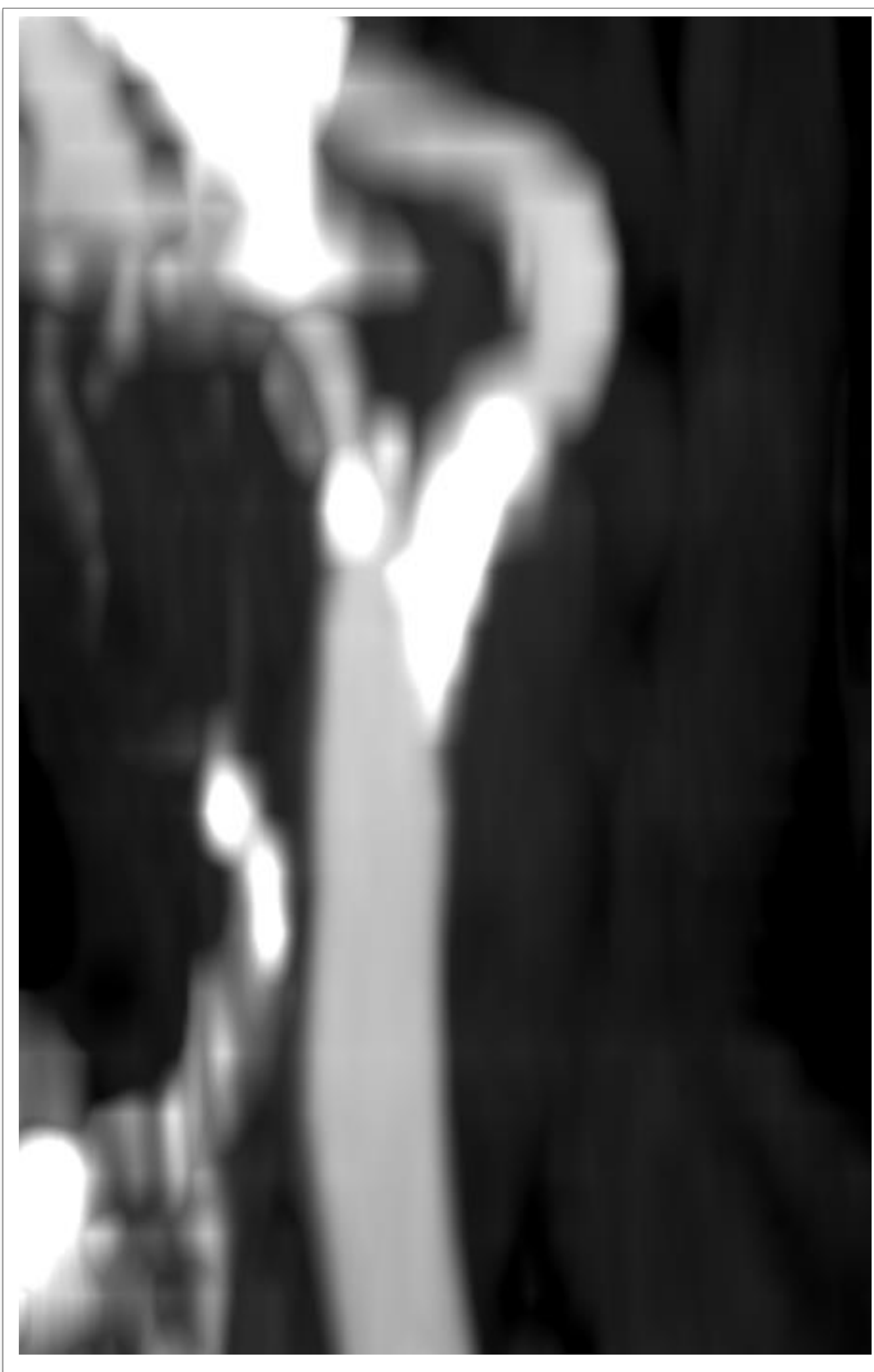
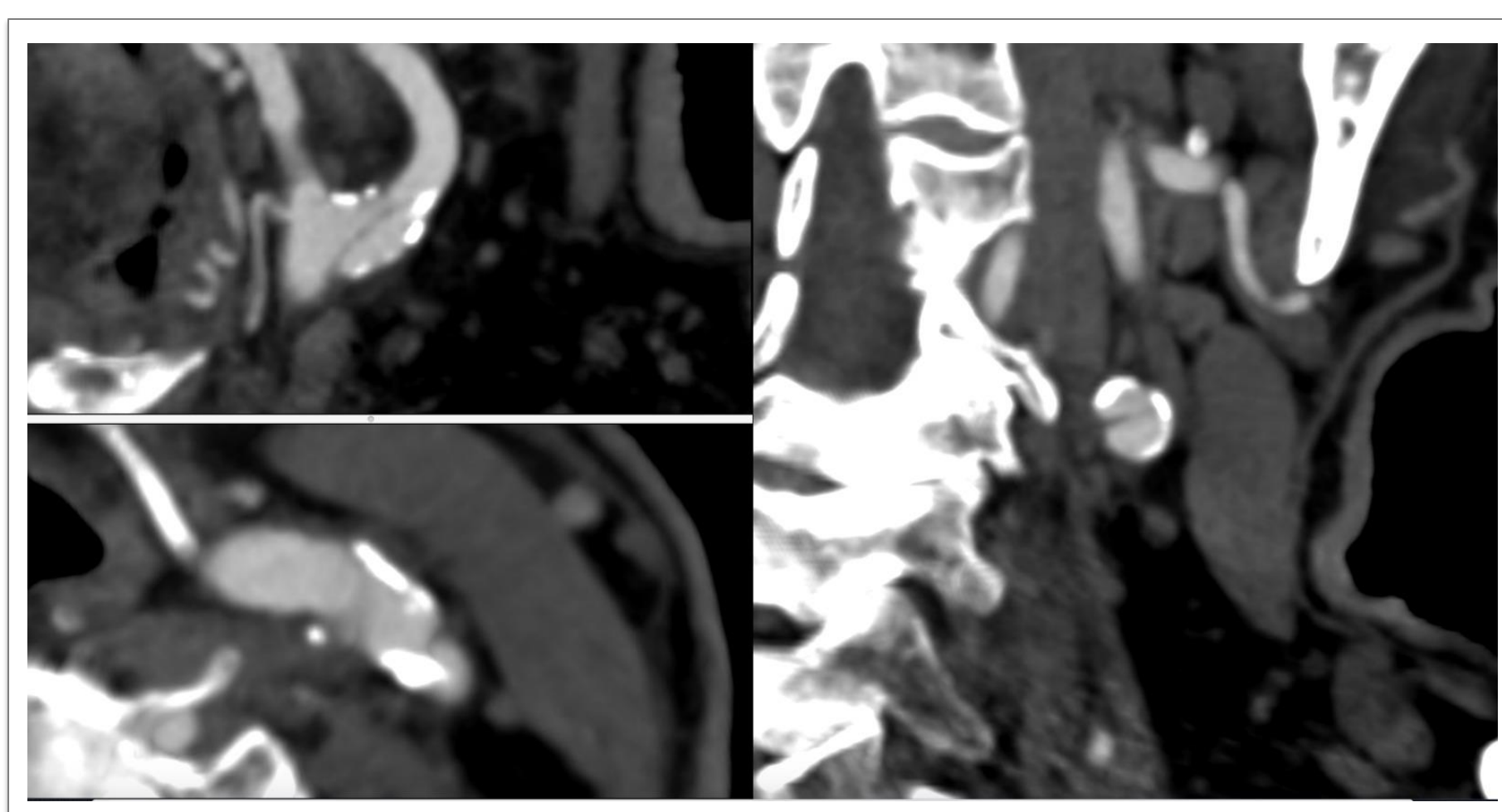
INTRODUCTION

This study aims to assess the feasibility and safety of endovascular treatment of spontaneous internal carotid artery dissections (ICAD) using a proximal embolic protection device (EPD).

Preoperative CTA 3D reconstruction in patient presenting ICAD



Preoperative CTA MIP reconstruction in patient presenting ICAD

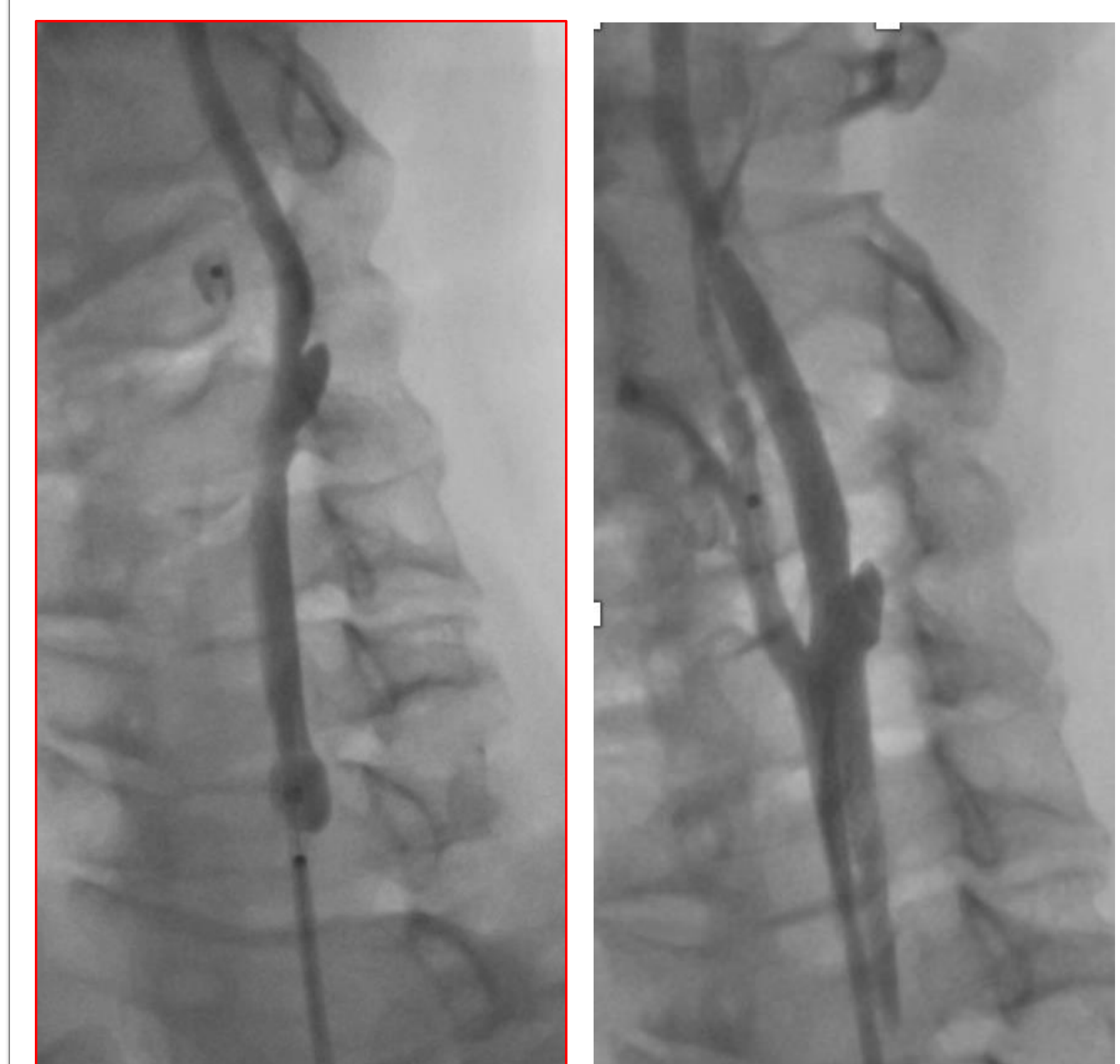
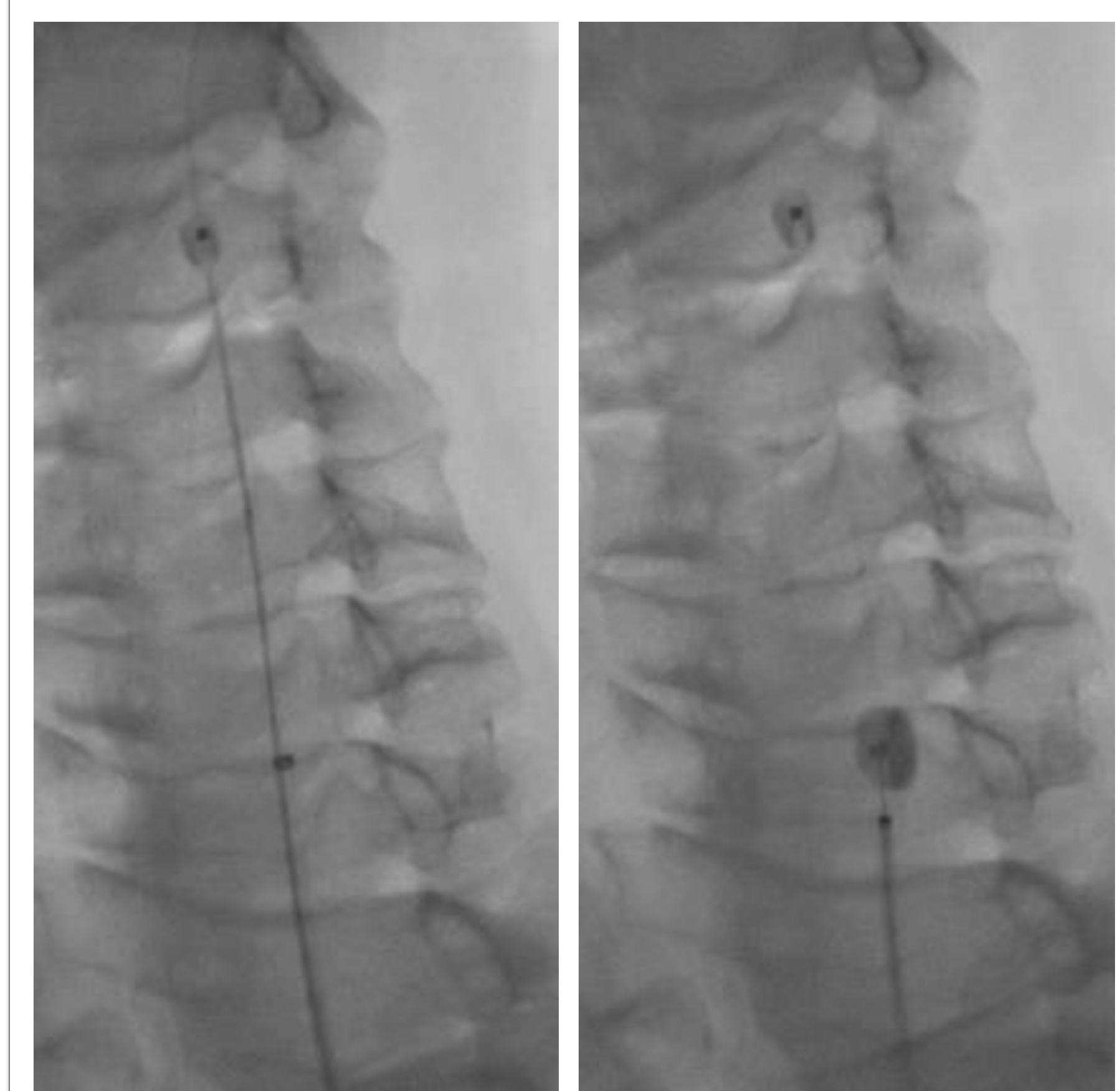
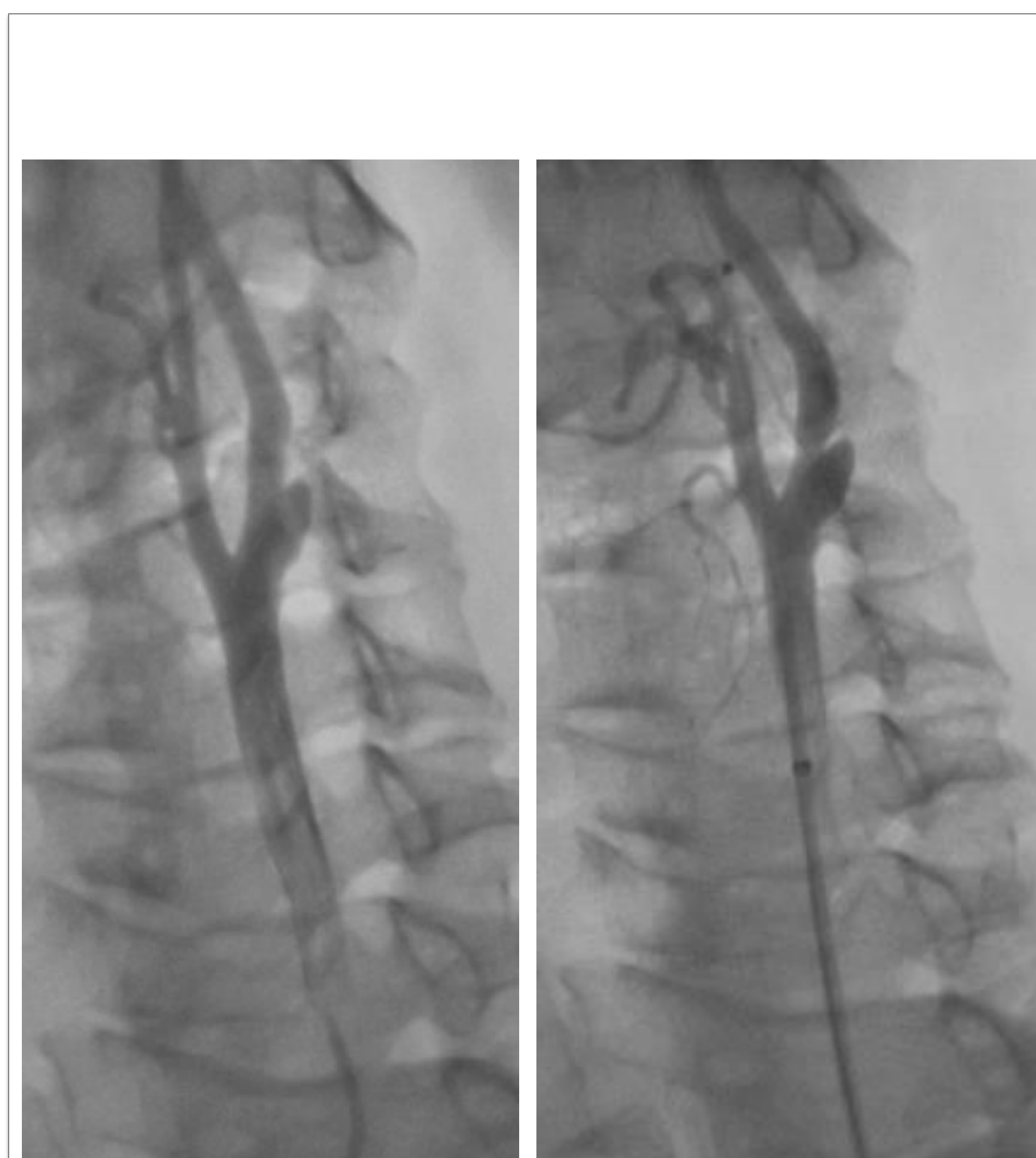


Presenter name, Associates and Collaborators

METHODS

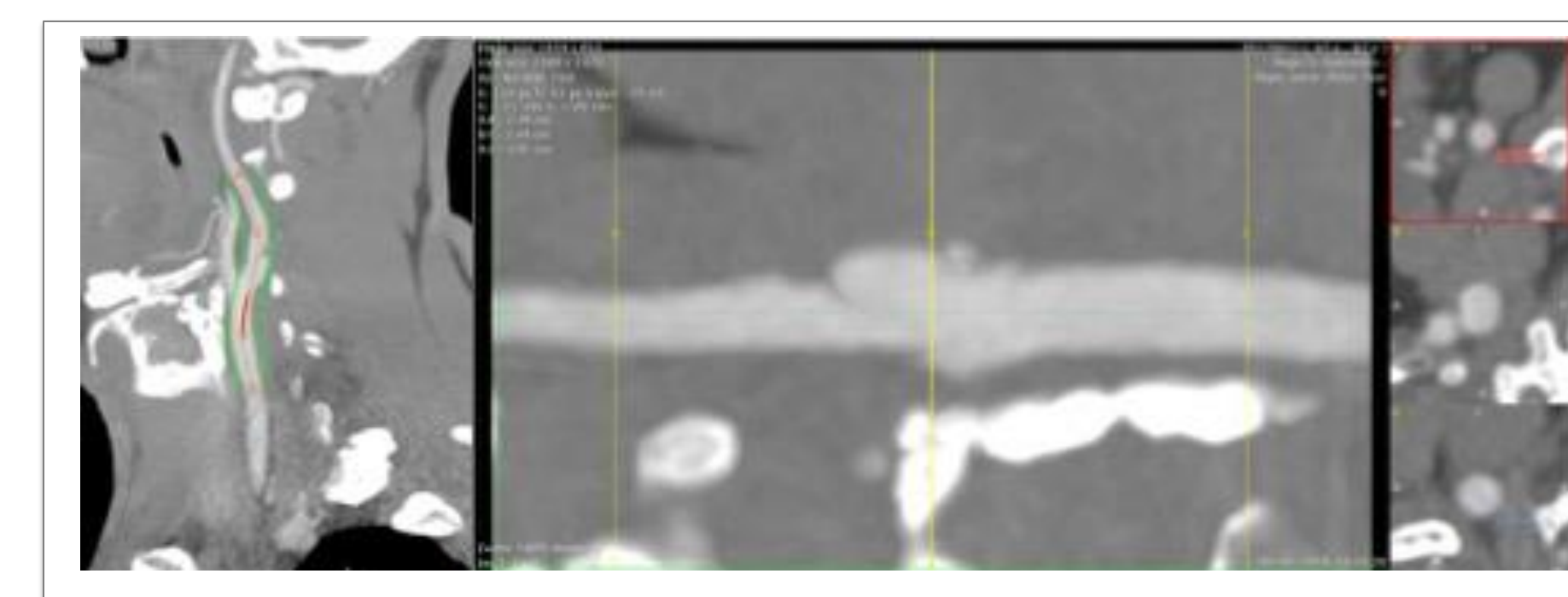
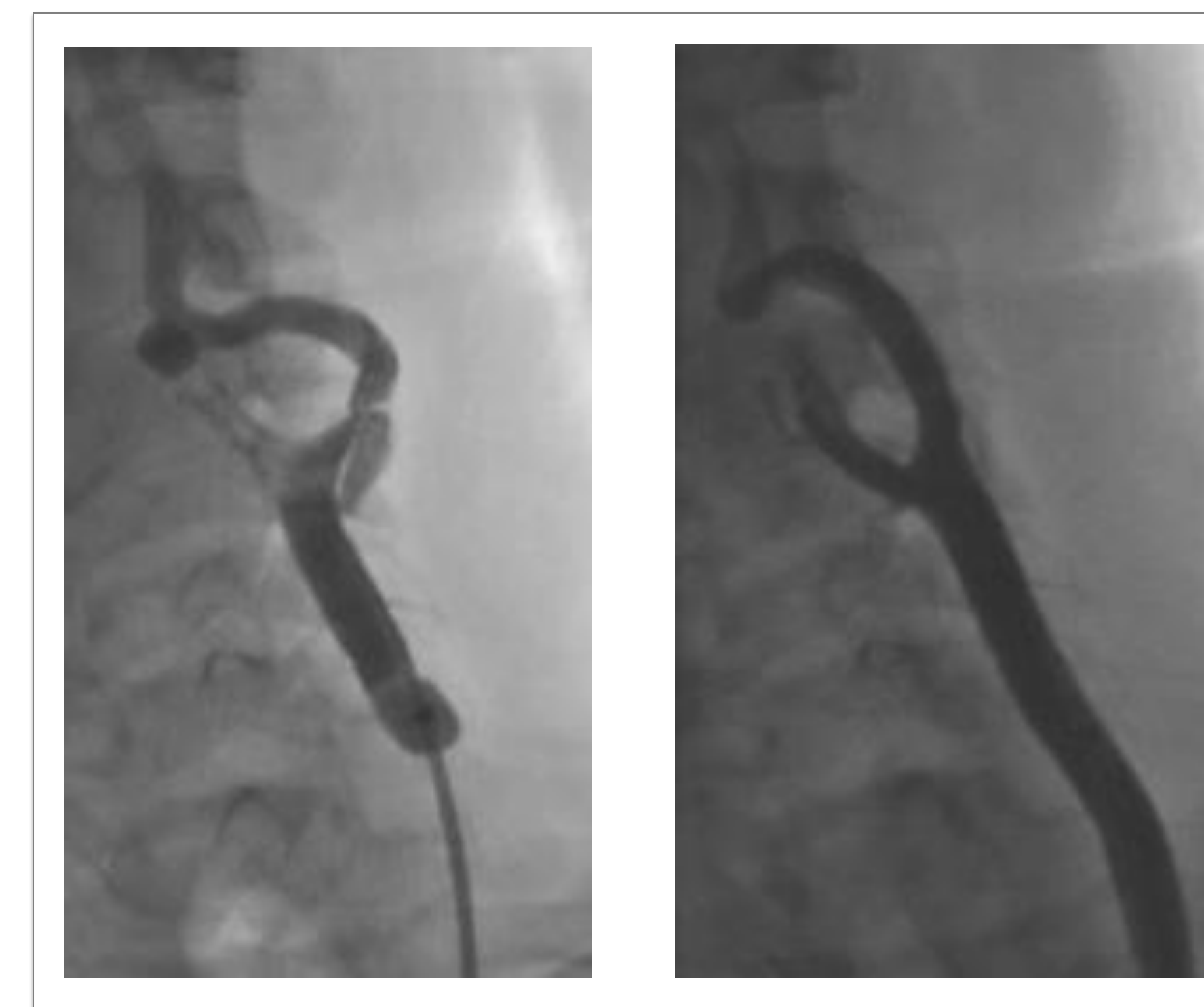
From January 2012 to December 2023 all consecutive patients admitted for ICAD who underwent carotid artery stenting using MoMa Ultra (Medtronic, Minneapolis, MN, USA) proximal EPD were included in this monocentric study and were retrospectively analyzed. The presence of neurological symptoms was the only indication for treatment. Early outcomes included technical success, perioperative mortality, and major cardiovascular and cerebral complications. Late outcomes were recurrent neurological symptoms, patency, and reinterventions.

Case example of endovascular ICAD with proximal EPD



RESULTS

A total of 9 patients were included in the study, all presented with neurological symptoms. Among them, 8 were diagnosed with a transitory ischemic attack (TIA), while 1 had amaurosis fugax and transitory aphasia. Significant haemodynamic ICAD were 7. Complete anatomic resolution was achieved in all patients with no further lesions to the carotid axis. At a median follow-up of 63.9 months (IQR 27.1-63.3) a single patient died due to worsening of preexistent chronic heart failure; no intrastent restenosis were registered and all stents were patent.



CONCLUSIONS

The use of a proximal EPD for endovascular treatment of ICAD under flow arrest seems to be feasible and safe, minimizing the risk of intraoperative stroke. Larger series are required to confirm these results and validate the treatment strategy.

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