

Title Videofluorography and MDCT findings in a case of pharyngeal perforation after anterior cervical spinal surgery with fusion (ACSF).

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Purpose Anterior cervical spinal surgery with fusion (ACSF) is the most widely used technique in the management of cervical spondylosis or disc herniation. A case of pharyngeal perforation after ACSF demonstrated by videofluorography and MDCT is described.

Methods A 39-year-old man, recently undergone to ACSF for interbody C3-C5 fusion with anterior cervical plate and screws, was submitted to a pharyngoesophageal videofluorography and 64 row-MDCT of the neck before and after oral administration of iodine contrast medium for persistent high dysphagia.

Results In the plain radiograph a fractured screw was detected, anterolaterally displaced on the right to the cervical spine, outside the pharyngeal lumen. After high-density (250% weight/volume) barium suspension administration the screw floated outside the pharyngeal lumen at C4-C6 level, and an extraluminal leak of barium was observed. On CT MPR and 3D reformatted images confirmed the screw was fractured and displaced outside the plate in the retropharyngeal space, anteriorly to C4, and also the hypothesis of posterior pharyngeal wall damage, for the presence of gas bubbles in the retropharyngeal space, thickening of prevertebral soft tissues, and contrast medium leak through a pharyngeal break in the retropharyngeal space.

Conclusions Imaging can play a role to correctly address the cause of dysphagia after ACSF.