

P26

Delayed screw migration following anterior cervical corpectomy

Matthew Carr¹, John Houten¹

¹Icahn School of Medicine at Mount Sinai, Neurosurgery, New York, NY, United States

Background: Delayed screw back-out following cervical corpectomy is rare but can lead to devastating injuries to the pharynx or esophagus. There is sparse literature describing the presentation and management of delayed screw back-out.

Research Question: What are the clinical characteristics and treatment options for delayed (>1 month) screw back-out after anterior cervical corpectomy?

Design: Systematic review

Methods: Embase, Medline, and Scopus were queried for case reports/series of delayed screw back-out after cervical corpectomy.

Results: Four case reports were included. The mean age was 40.5 years old, with three male patients. Average time to screw back-out was 5.5 years. There were three single-level corpectomies and one two-level corpectomy. All four cases involved single level screw back-out; the most cranial level was affected in three cases and the caudal level in one case. One patient had a locking plate used, while the others did not specify the construct. Two patients presented with dysphagia, three patients had pharyngoesophageal injury, and all four had associated infection. All patients required surgical intervention with removal of extruded hardware, and two required operative esophageal repair. In comparison, ACDF patients experiencing late screw back-out were older (mean age 57.9 years), had shorter time to back-out (4.6 years), and were less likely to have screw back-out at the cranial level (40.8%).

Discussion: Delayed screw back-out after corpectomy has been infrequently reported and appears primarily in young patients on average five years out from the index surgery. Existing reports are biased towards symptomatic patients, as asymptomatic cases managed conservatively are less likely to be reported on in the literature. Spine surgeons must remain watchful for delayed screw back-out, and management may require interdisciplinary collaboration with otolaryngologists or thoracic surgeons to treat associated surrounding organ damage.