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## Multi Level ACDF with UNIPLATE™ and Iliac Crest Autograft

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Pre-Op [REDACTED]



Pre-Op [REDACTED]

### History of Present Illness and Radiographs

This is a 37-year-old female with a 5-day history of dysphagia with accompanying right arm pain. The patient has had a previous Anterior Cervical Fusion from C5-C6-C7 with plate, screws and autograft performed in August 2002. She was lost to follow up and presented with the current history.

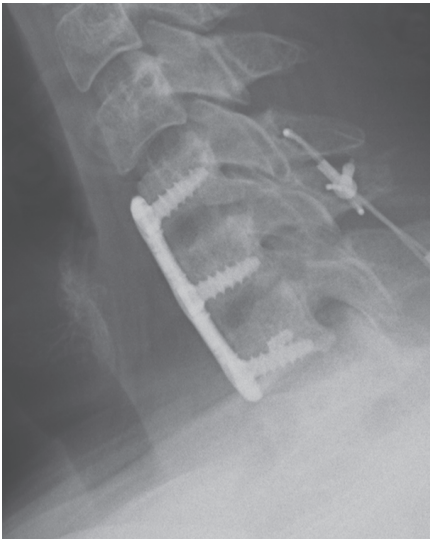
Preoperative evaluation revealed that the attempted anterior fusion from C5 to the C7 level does not appear to be fused at either the C5-C6 or C6-C7 disc spaces. Two screws had been placed in the C7 vertebral body to secure the cervical plate. The Right C7 screw was fractured a few millimeters from its tip. The left C7 screw had backed out several millimeters and small ossicle was present adjacent to the portion that was backed out. The head of the left C7 screw was adjacent to the posterior margin of the left side of the esophagus. Posterior osteophytes formation, minimal bulging of the disc annulus, and mild narrowing of the neural foramina were present.

### Treatment Method and Materials

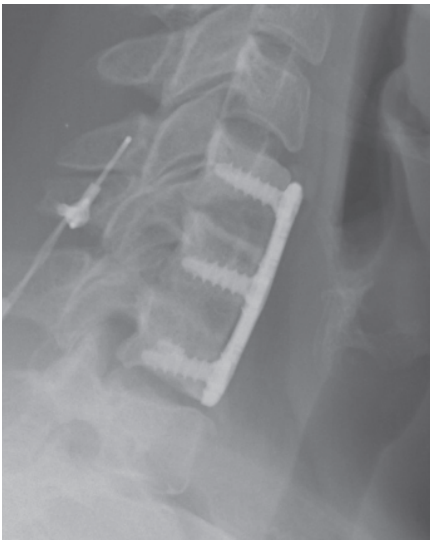
Because of concern for esophageal erosion from the protruding screw and the potential for further hardware migration, the patient was taken to the operating room where the original plate was removed along with the screws. The tip of the broken screw at C7 to the right side was left in the vertebral body as removing it would have required an unnecessary hemi-corpectomy, and the C5-C6 and C6-C7 levels were explored and found to have not had complete boney healing.

These two levels were burred down to bleeding bone and re-grafted with Iliac crest autografts. Because of the location of the original screw holes and the retained screw portion in C7, re-instrumentation with a cervical plate with 2-screws per level fixation was not feasible. The UNIPLATE was utilized because of the ability to gain fixation with a single larger midline screw per level.

A two level 32mm UNIPLATE Anterior Cervical Plate was then measured and secured to the vertebral body with three self-drilling screws for anterior plating support. All three screws obtained excellent purchase during insertion. *(continued on back)*



Post-Op x-Ray



X months Post Op

Once all the screws were inserted, Fluoroscopic picture was taken to verify the placement of the plate and screws, and then the cams were turned to lock the screws in place.

The construct was supplemented with posterior cables in C5-C7 in tension band fashion per Surgeon's practice on revision cases.

### **Follow-up Results**

The patient has had an excellent recovery with resolution of her dysphagia and arm pain. She presently has no complaints and an intact neurological exam. She participates in an active exercise program and plans on returning to work soon.

A/P and lateral cervical x-rays obtained at 6-month follow-up demonstrated evidence of bony fusion proceeding and no significant movement of the plate and screws.

### **Conclusion**

This case demonstrates the successful use of the UNIPLATE system in a case where limited options were available due to the broken screw in C7. The midline screw fixation with the UNIPLATE system proved to be an optimal solution in this situation where no other reasonable anterior instrumented option existed.