Esophago-Cutaneous Fistula As A Late And Rare Complication Of Neglected Infection In Anterior Cervical Plating

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Introduction
Anterior cervical plating is a common surgery for the treatment of spondylosis, myelopathy, radiculopathy, and cervical spine trauma. Formation of esophago-cutaneous fistula has a rare incident of less than 0.1%. Common causes of fistula formation are pressure necrosis; loose implants or bone graft; or esophageal injury during operation; but in our cases, neglected low grade infection might be the most possible cause. We report 2 cases of esophagocutaneous fistula after anterior cervical plating, in traumatic spine injury patients, with chronic history of infection.

Case series
Mr A is a 25 years old gentleman with quadriplegia following C6 burst fracture. Anterior C6 cervical corpectomy and fusion was performed. He was subsequently on tracheostomy and PEG tube. 2 years later, he presented with fever, productive cough and shortness of breath for 2 months. On examination, he had an anterior neck wound with pus discharge. CT fistulogram revealed esophagocutaneous fistula. He refused further surgery and opted conservative management.

Mr B is a 22 years old gentleman with traumatic C5 burst fracture, treated with anterior C5 cervical corpectomy and fusion. 2 years later, he presented with chronic productive cough for 3 months, associated with low grade fever and dysphagia. He also had a discharging sinus from previous operation site. Direct laryngoscopy showed anterior cervical plate erosion into posterior esophageal wall, and communicated with the anterior neck fistula with persistent pus discharge. Anterior cervical plate was removed and posterior esophageal wall was repaired by plastic surgery team.

Discussion
Esophagocutaneous fistula is a rare complication, which are usually associated with esophageal injury. As for our case series, the possible cause could be chronic neglected infection, along with resultant salivary leakage into surrounding soft tissue. This ultimately leads to communication of the esophagus with the skin and hence a fistula. Multidisciplinary teams approach is recommended in the management of this complication. Conservative treatment is suggested for early and small esophageal perforations, whereas surgical intervention may be considered for large defects. Elias et al recommended all anterior hardware to be removed, and posterior instrumentation in case of non fusion. In our cases, both patients had delay presentation of esophagocutaneous fistula, and chose 2 totally different way in managing a similar complication. So far operative management have showed immediate of fistula closure. Whereas patient who chose conservative management still on daily dressing.

Conclusion
Esophagocutaneous fistula is a rare complication following anterior cervical plating, where neglected infection could be a possible cause. Nevertheless, it can be managed conservatively or surgically. Surgery always expedite fistula closure.

Reference