TRACHEOSTOMAL MYIASIS: A CASE REPORT

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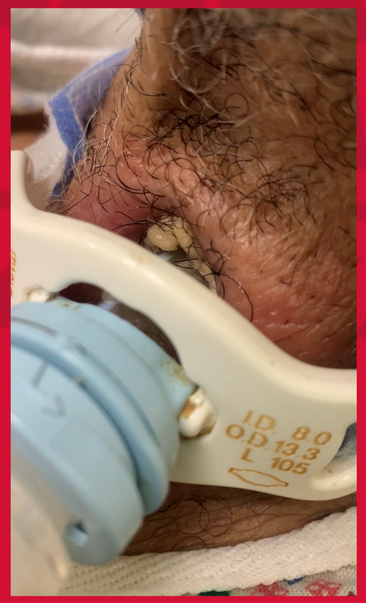
INTRODUCTION

Myiasis describes the infestation of a living host by fly larvae (maggots) on the order Diptera. In humans, myiasis causes a wide range of clinical pathology that ranges from benign furuncular myiasis to life threatening airway obstruction from tracheopulmonary infestation. Multiple classification systems exist to describe myiasis, but for clinical purposes the most useful systems describe anatomic location and/or pathological syndrome.[1] The WHO ICD10 classification scheme describes the following types of myiasis: cutaneous (furuncular), wound (traumatic), ocular, nasopharyngeal (laryngeal), aural, other sites (intestinal, genitourinary) and unspecified.[2]

Myiasis involving the tracheobronchial tree is a rare occurrence when considered against all myiasis cases, but the clinical entity is not new. Tracheostomal myiasis is a rare presentation of myiasis with few documented case reports. Huang et al reported a case in 2019 of tracheostomal hemorrhage secondary to intratracheal myiasis.[3] We did not find any reports of tracheostomal myiasis in ALS patients in the literature and to the best of our knowledge there have been no published case reports of tracheostomal myiasis in the United States.

Please use your smart phone to scan the QR code below to access the short video (taken with permission of Veteran and his wife) to visualize the tracheostomal myiasis



CASE

This is a case report of unintentional myiasis in the tracheostomy site of a ventilator dependent 76-year-old man with Amyotrophic Lateral Sclerosis (ALS). The Veteran presented to the Emergency Department (ED) with tracheostomy site pain that had been ongoing for 48 hours. His wife reported that he had maggots and malodorous yellow-green discharge at the tracheostomy site. Fifteen days prior to presentation the wife had contacted ENT with reports of similar malodorous yellow-green discharge at the tract. The Veteran completed a 7-day course of antibiotics with resolution of the symptoms. Three days prior to presentation the Veteran and his wife were outdoors in their backyard enjoying the warm weather. They report that there were a large amount of flies swarming around so the Veteran requested to return indoors after about 15 minutes. Approximately 24 hours later, he began complaining of trach site pain that extended laterally to his right clavicular area. His wife examined and cleaned his tracheostomy site and noted some mild erythema in the right supraclavicular area. The Veteran continued to complain of a “biting” pain that increased in intensity over the following 24 hours. When his wife examined the trach site again she noted multiple small maggots and endorsed removing “about 10-15 of them.” When they presented to the ED the next morning, maggots were visualized circumferentially around the tracheostomy and approximately 30 maggots were removed with forceps by ENT. Maggots were also seen on the tube and cuff of the tracheostomy so the tube was replaced. Flexible laryngoscopy and tracheoscopy performed revealed no visible maggots in the larynx, trachea, or mainstem bronchi. The trachea appeared normal with no ulceration or signs of inflammation. The Veteran subsequently reported immediate resolution of his pain.

The Veteran was observed for an additional day in the hospital and he was seen by Infectious Disease. No eosinophilia was noted. No antibiotics or antiparasitic medications were recommended as the maggots seemed to be localized to the area of the tracheostomy with no evidence of systemic spread. No further maggots were found during his 24-hour observation stay. ENT noted that the tracheostomy site was significantly improved, without malodor or discharge which may be attributed to maggot debridement activities. Since his condition was improved with no need for further debridement by ENT, he was discharged to home.

DISCUSSION

Human myiasis is endemic to many tropical regions. Although rare in non-tropical climates, myiasis still affects populations of all regions either from travel or locally acquired infection. Myiasis involving the tracheobronchial tree is a rare occurrence when considered against all myiasis cases, but the clinical entity is not new. We did not find any reports of tracheostomal myiasis in ALS patients in the literature and to the best of our knowledge there have been no published case reports of tracheostomal myiasis in the United States.[3-6]

As there is no cure for ALS, promoting quality of life (QOL) for people living with ALS is paramount. This case encourages healthcare providers of people with advanced ALS, high level SCI and other neuro-degenerative diseases with ventilator dependence to educate Caregivers on precautions when engaging in outdoor activities. This case also advocates for the consideration of myiasis as part of the differential diagnosis when assessing discomfort and pain in the trach site.

CONCLUSION

Tracheostomal myiasis is a rare presentation of myiasis with few documented case reports worldwide. This case encourages Providers and Caregivers of people with advanced ALS, high-level spinal cord injury, and other ventilator-dependent conditions to implement precautions when resuming outdoor activities.

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