Pleomorphic adenomas (PA) are the most common benign tumors of the salivary glands. These tumors comprise approximately 65% of all salivary tumors and typically emerge in the upper airway salivary glands including the parotid, submandibular, sublingual, and minor salivary glands [1-3]. Though rare, PAs have been described in other regions of the aerodigestive tract including the soft and hard palate, nasal septum, buccal mucosa, and the upper lip [4]. In this report, we present an extremely rare case of pleomorphic adenoma in the trachea.

Case Report

An 83-year-old female was referred to the Department of Otolaryngology-Head and Neck Surgery at the University of Virginia Health System for management of an obstructive symptoms. She initially presented to her primary care physician with a 1-month history of worsening shortness of breath and blood in her oropharynx of undetermined origin. She noted an unintentional 10 pound weight loss over the past 1.5 years. Her past medical history was significant for hypertension and rheumatoid arthritis. The patient was an alcohol user and endorsed a long-time exposure to second-hand smoke, though denied a personal history of smoking. Her physical exam was unremarkable and was not in respiratory distress. A flexible bronchoscopy performed in clinic revealed a solitary, polypoid mass with a wide-base and smooth, hypervascular surface. The mass was obstructing approximately 90% of the posterior tracheal lumen approximately four tracheal rings below the cricoid cartilage. A computed tomography study of her neck and chest was performed at an outside hospital, which demonstrated a smooth tracheal mass measuring approximately 1.6 cm by 1.3 cm.

The decision was made to proceed to the operating room to obtain a biopsy of the mass and debulk the tracheal portion of the tumor. The location of the tracheal mass was reconfirmed to be about 3 cm below the vocal fold edge. The excised tumor was a smooth, polypoid mass with hypervascularity on the surface and measured approximately four tracheal rings below the cricoid cartilage. After the tracheal mass was debulked, a tracheostomy was performed and the patient was extubated without complication. A computed tomography and magnetic resonance imaging demonstrated a well-defined, heterogenous mass, measuring 5 x 1 x 1 cm, located at the upper trachea just below the vocal folds. An office bronchoscopy revealed a solitary, polypoid mass with a wide-base and smooth, hypervascular surface. The mass was obstructing approximately 90% of the posterior tracheal lumen approximately four tracheal rings below the cricoid cartilage. A computed tomography study of her neck and chest was performed at an outside hospital, which demonstrated a smooth tracheal mass measuring approximately 1.6 cm by 1.3 cm. The patient tolerated the procedure and was discharged on POD#3 after an unremarkable hospitalization.

On microscopic examination, the tumor consisted of bland basaład proliferation growing in orderly cords with multifocal areas of squamous differentiation, with adjacent areas of myxoid stroma. The pathologic differential diagnosis on hematoxylin and eosin staining included pleomorphic adenoma, basal cell adenoma, and neuroendocrine tumor. Immunohistochemically, the tumor was negative for chromogranin and synaptophysin and strongly positive for p63 and smooth muscle actin (SMA). Immunohistochemistry for c-kit highlighted scattered mast cells and GFAP stained scattered individual cells. These histopathology characteristics were consistent with benign mixed tumor and the diagnosis was confirmed during surgical pathology consensus conference.

The patient was seen approximately 2 weeks following her procedure and flexible laryngoscopy revealed a widely patent airway with no evidence of tumor recurrence. She has subsequently returned to her primary Otolaryngologist for continued follow-up.

Introduction

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