Abstract

The majority of retropharyngeal hematomas described in the literature have been associated with anticoagulation therapy, tumors, aneurysm, infection or cervical spine injury. We present a case of a 55-year-old African American female with acute chest pain, sore throat, and dysphagia. Her past medical history was significant for uncontrolled hypertension and cervical spine arthritis. Physical exam was significant for posterior pharyngeal edema and her labs indicated mild leukocytosis. Contrast-enhanced CT scan of the neck demonstrated an extensive retropharyngeal fluid collection with mediastinal extension, concerning for an abscess. A trans-oral and trans-cervical incision and drainage of the presumed abscess revealed clotted blood and venous ooze. Penrose drains were placed in the retropharyngeal space to allow for spontaneous drainage over the next two days. The patient was kept intubated for 8 days to ensure a secure airway while venous ooze was allowed to self-tamponade. Antihypertensive medications were utilized to control her labile blood pressures. To our knowledge this is the first case report of uncontrolled chronic hypertension as the etiology of a spontaneous mediastinal venous hematoma with presentation as a retropharyngeal space fluid collection. When evaluating retropharyngeal space occupying lesion with mediastinal extension, consideration should be given to mediastinal venous plexus bleeding. Treatment involves securing the airway, drainage, and control of blood pressure.

Case Report

A 55 year-old African American women presented to the emergency room with progressive chest pain, sore throat, and dysphagia. Her past medical history was significant for uncontrolled hypertension and cervical spine arthritis with radiculopathy. Physical exam was significant for posterior pharyngeal edema and a toxic appearance. Contrast-enhanced CT scan of the neck demonstrated extensive retropharyngeal fluid with bilateral mediastinal extension. The patient was taken to the operating room urgently for trans-oral and trans-cervical drainage. Trans-oral approach to the retropharyngeal space revealed clot without purulence. A trans-cervical approach was then performed and similarly clotted blood was obtained, without any sign of purulent material. Penrose drains were placed trans-cervically superiorly and inferiorly in the retropharyngeal space. The patient remained intubated for airway protection and observed in the intensive care. Sanguineous drainage continued via the drains. The patient was extubated on post-operative day 8. Controlling her blood pressure proved to be problematic, BP range (158-184/97-110). Serosanguineous drainage ceased from the superior drain on POD- 4. Patient was discharged POD-10 in a normotensive state and without chest pain and dysphagia.

Discussion

Hematoma presenting as fluid occupying the retropharyngeal space is rare but may be due to neck and thoracic trauma, aneurysm or rupture of the great vessels, surgical intervention, coagulation abnormalities, neoplasm’s, and chronic uncontrolled hypertension. This article presents a unique case of chronically uncontrolled hypertension as the cause of a mediastinal hematoma tracking to the retropharyngeal space and presenting as a retropharyngeal fluid collection. Hemorrhagic causes although uncommon, may involve traumatic cardiac or blood vessel rupture subsequent to a surgical procedure, or a parathyroid adenoma with subcapsular hemorrhage (2,4). The anatomical boundaries of the retropharyngeal space are; buccopharyngeal fascia anteriorly and the alar prevertebral fascia posteriorly which extends from the skull base to the superior mediastinum. Understanding these boundaries serves to explain how mediastinal hematoma can extend superiorly and lead to edema of the posterior pharynx (5). Clinical presentation of mediastinal hematoma includes dyspnea (most common), tachycardia, neck/chest wall ecchymoses, dysphagia, dysphonia, chest pain, and neck pain. Physical examination may demonstrate a palpable mass, neck vein distension due to mass effect of the hematoma, dysphonia due to compression of the recurrent nerve, ecchymoses of the neck. Differential diagnosis includes: injury to great vessels, iatrogenic associated injuries to the great vessels, ruptured small blood vessels due to hypertension, anticoagulation with spontaneous hemorrhage (9), flexion and hyperextension of the neck with contusion (7,8), infection in the mediastinum, or laceration of soft tissue with tearing of small blood vessels. Diagnostic imaging modalities include chest x-ray, ultrasonography, CT, MRI, and scintigraphy. Malignancy requires tissue specimen for histopathologic examination. There is a paucity of reported cases of hypertension being the main cause of a mediastinal hematoma tracking up to the retropharyngeal space. Culliford et al reported a comparable case in 1977, the patient had exploratory thoracotomy and drainage of retropharyngeal hematoma, complication of therapy with anticoagulation associated with retropharyngeal hematoma. Arch Surgery, 1977 Dec; 112(12):1300-1.

References