Case report

Spindle cell lipoma of the esophagus

Rene Razzak a, Eric L.R. Bédard a,*, Ian Hunt a, Niranjala Satkunam b

a Division of Thoracic Surgery, Department of Surgery, University of Alberta, Edmonton, Alberta, Canada
b Department of Pathology, Royal Alexandra Hospital, Edmonton, Alberta, Canada

Received 1 August 2008; received in revised form 31 October 2008; accepted 3 November 2008

Abstract

Esophageal lipomas are benign tumors representing less than 0.5% of all gastrointestinal lipomas. They are typically detected incidentally but occasionally present with local symptoms and rarely with life-threatening complications. We describe a case of a 60-year-old man with progressive dysphagia and weight loss, who presented with several episodes of near asphyxiation secondary to regurgitation and aspiration of the pedunculated mass. Preoperative investigations included a barium meal, esophagoscopy and computerized tomography. The pedunculated lipoma was excised via a cervical approach and found, at final pathology, to be a spindle cell lipoma, a rare variant not previously described in relation to the esophagus.

# 2009 European Association for Cardio-Thoracic Surgery. Published by Elsevier B.V. All rights reserved.

Keywords: Lipoma; Esophagus; Spindle cell lipoma

1. Introduction

Benign tumors arising from the esophagus are very rare. In a large pathology series of over 4000 cases of benign neoplasms of the gastrointestinal tract, lipomas accounted for 4.1% of cases, and esophageal lipomas accounted for just 0.4% [1]. Esophageal lipomas are rarely reported [1,2]. The majority of esophageal lipomas occur in the cervical and upper thoracic esophagus [1,3]. Most esophageal lipomas are small and are found incidentally on imaging, very rarely do they present with complications [4]. This is the first reported case of esophageal spindle cell lipoma, a rare lipoma variant. We describe its rare presentation, and its radiological and pathological features following excision.

2. Case summary

A 60-year-old male presented to the emergency room with an episode of near asphyxiation requiring urgent assessment and management. Prior to this he described a 6-month history of weight loss and progressive dysphagia. His acute presentation was precipitated by a light meal followed by regurgitation and a brief sense of asphyxiation.

An urgent barium swallow of the upper gastrointestinal tract displayed a 5 cm x 4 cm oval shaped structure at the T1-T3 level. At esophagostroscopy, a smooth mobile, pedunculated lesion was encountered immediately distal to the cricopharyngeus muscle. The base arose from the right side of the esophagus. Biopsies were non-diagnostic with no evidence of smooth muscle tumor.

Computed tomography (CT) with oral contrast of the thorax visualized an oblong-shaped fat-attenuating mass in the upper esophagus (Fig. 1a and b). No significant mediastinal or hilar adenopathy was apparent.

Although endoscopic and computed tomography findings suggested a benign lesion, malignancy could not be excluded and given the patient’s progressive symptoms and presentation a positron emission tomography (PET) or bone scan were not done. Surgical excision of the mass was completed. A standard left anterior sternocleidomastoid incision and approach to the esophagus was undertaken. A 4 cm esophagotomy was made along the left side of the esophagus. The submucosal tumor was delivered up through the esophagotomy. A complete excision was performed and the cuff of normal mucosa and the base was oversown. The esophagotomy was closed in two layers and closure assessed intraoperatively with repeat esophagoscopy. The patient recovered without incidence in the postoperative period. A contrast swallow on postoperative day 2 yielded no leaks at the site of the esophagotomy.

The gross appearance of the specimen showed it to be a yellow encapsulated pedunculated mucosa covered polypoid tumor. It was well circumscribed. Lesional tissue was not
lipoma is characterized by the presence of floret cells and varying amounts of lipomatous bundles of uniformly arranged spindle cells and myxoid elements [6]. They are uncommonly encapsulated and display strong CD34 positivity. They do not react with antibodies to S100, factor VIII and to alpha smooth muscle actin [7]. Spindle cell lipomas lack lipoblasts, a key defining feature of liposarcomas. To our knowledge there are no reports involving degeneration of a spindle cell lipoma to a spindle cell liposarcoma.

Spindle cell lipoma was first described in 1975 as a benign lesion in which mature fat is replaced by collagen-forming spindle cells [5]. In that small case series three-quarters of the patients with this rare variant were between the ages of 46 and 81, with a mean of 56 years and over 90% of the subjects were male [5]. Most commonly spindle cell lipomas are found on the neck, shoulder and back, they are rarely found along the gastrointestinal tract [5,8]. Variation in adipose and non-adipose components (i.e. spindle cells) provides a wide spectrum of imaging features on CT or MRI. The non-adipose components have indistinct findings. A diagnostic dilemma arises in attempting to differentiate among lipomas, lipoma variants, and liposarcomas [9].

Management of esophageal lipomas is dependent on size and location of the lesion. The options include monitoring if diagnosis is secure and symptoms are not experienced, or removal endoscopically or via either a cervical or thoracic approach.

In conclusion, esophageal lipomas are a rare benign tumor of the esophagus. Spindle cell lipomas are a rare variant of the classic lipoma with unique histological characteristics. They are slow growing and generally cause symptoms once a size of 2 cm is reached. Surgical excision is required for symptom relief and to exclude malignancy. Management options vary depending on the size and location of the mass.

References