ABSTRACT

Objectives: Fibrovascular polyps of the hypopharynx and esophagus are rare and the majority of the literature is comprised of case reports. Our goal is to 1) present one of the largest series of patients from a single institution that presented with fibrovascular polyps. 2) Describe their presentation focusing on airway management and clinical demographics. 3) Discuss our surgical management and demonstrate how it has evolved from open to endoscopic approaches.

Methods: A retrospective review was conducted of four patients that presented to a tertiary medical center with fibrovascular polyps between 1990 and 2012. Patient demographics, clinical presentation, and surgical approaches were reviewed.

Results: The average age at presentation was 72 years old (range 59-85) (Table 1). Three patients were male and one was female. Two patients presented with airway compromise requiring tracheotomy (Cases 1 and 3). Cases 1 and 4 spontaneously regurgitated the masses into their mouths (Figure 1). Case 1 protected her airway by grasping the polyp with her teeth.

All patients had removal of the polyp shortly after presentation. Two underwent transcervical approaches; either a lateral pharyngotomy or esophagotomy depending on the location. The two other cases, the most recent, underwent endoscopic removal (Figure 2). The polyps arose from the hypopharynx in three patients and upper esophagus in one. The range of lengths was 2.5 to 17.5 cm. Three patients had complete resolution of their symptoms and remained polyp free. One patient had recurrence of the polyp two years later and is currently being observed.

Conclusion: Fibrovascular polyps are rare tumors of the hypopharynx/esophagus that present in older patients. Although benign, they can cause life threatening airway compromise that may necessitate tracheotomy. We present four cases of fibrovascular polyps and discuss our evolving surgical management. We demonstrate that endoscopic removal is a viable option for these tumors.

INTRODUCTION

Fibrovascular polyps are benign tumors that originate in the hypopharynx or esophagus. They are intraluminal masses that grow over time. The presentations vary widely and range from mild symptoms such as cough or dysphagia, to life threatening airway obstruction. Management is surgical and open and endoscopic approaches have been described. We present 4 cases of fibrovascular polyps that highlight the often dramatic presentations. We focus on our most recent case and describe the details of endoscopic removal.

Methods and Materials

A retrospective review was conducted of four patients that presented to the Baylor College of Medicine Department of Otolaryngology with fibrovascular polyps between 1990 and 2012. Patient demographics, clinical presentation, and surgical approaches were reviewed.

Results

The average age at presentation was 72 years old (range 59-85) (Table 1). Three patients were male and one was female. Two patients presented with airway compromise requiring tracheotomy (Cases 1 and 3). Cases 1 and 4 spontaneously regurgitated the masses into their mouths (Figure 1). Case 1 protected her airway by grasping the polyp with her teeth.

All patients had removal of the polyp shortly after presentation. Two underwent transcervical approaches; either a lateral pharyngotomy or esophagotomy depending on the location. The two other cases, the most recent, underwent endoscopic removal (Figure 2). The polyps arose from the hypopharynx in three patients and upper esophagus in one. The range of lengths was 2.5 to 17.5 cm. Three patients had complete resolution of their symptoms and remained polyp free. One patient had recurrence of the polyp two years later and is currently being observed.

Discussion

Fibrovascular polyps are benign masses of the hypopharynx and esophagus that although rare, are the most common benign intraluminal lesions of the esophagus. They most commonly affect males in the 6th or 7th decade of life. Their etiology is largely unknown but they likely begin as a redundant tissue that progressively elongates with esophageal peristalsis. The majority originate in the esophagus near the upper esophageal sphincter. Histologically, they are lined by squamous epithelium with cores of fibrovascular and adipose tissue.

The most common symptom of fibrovascular polyps is dysphagia. Other symptoms include regurgitation of a mass in the mouth, globus sensation, weight loss, or regurgitation of food. Respiratory symptoms often occur and can range from intermittent dyspnea to choking. Cases of death from asphyxiation have been described.

Treatment is surgical. Depending on the location, possibilities include transcervical or transoral approaches vs endoscopic approaches. Endoscopic removal has been described by several authors and generally thought to be limited to smaller polyps. However, successful endoscopic removal of polyps as large as 11 cm has been described. Our case demonstrates that even larger (17.5 cm) polyps can be removed endoscopically. Factors that must be considered when considering an endoscopic approach include adequate visualization, pedicle size, and vascularity. Some of the benefits of an endoscopic approach include avoidance of an esophagotomy, shorter OR times, quicker return to a diet, better patient control, and a shorter hospital stay. Control of the airway is key, and some cases may require tracheotomy if airway obstruction is present.

The majority of the literature on fibrovascular polyps is composed of case reports or meta-analyses. Our series represents the largest cohort of patients from a single institution.

Table 1. Study Cohort Characteristics

<table>
<thead>
<tr>
<th>Patient</th>
<th>Age/Sex</th>
<th>Symptoms/Presentation</th>
<th>Location</th>
<th>Surgical Approach</th>
<th>Size</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>59F</td>
<td>Respiratory distress, regurgitation of mass</td>
<td>Upper Esophagus</td>
<td>Transcervical with esophagotomy</td>
<td>5 x 2 cm</td>
<td>Complete resolution</td>
</tr>
<tr>
<td>Case 2</td>
<td>67M</td>
<td>Intermittent choking, globus sensation</td>
<td>Hypopharynx</td>
<td>Transcervical with pharyngotomy</td>
<td>6.2 x 1.8 cm</td>
<td>Complete resolution</td>
</tr>
<tr>
<td>Case 3</td>
<td>77M</td>
<td>Respiratory distress</td>
<td>Hypopharynx</td>
<td>Endoscopic removal</td>
<td>2.5 x 1.5 cm</td>
<td>Recurrence 2 years later</td>
</tr>
<tr>
<td>Case 4</td>
<td>85M</td>
<td>Regurgitation of mass</td>
<td>Hypopharynx</td>
<td>Endoscopic removal</td>
<td>17.5 x 2.0 cm</td>
<td>Complete resolution</td>
</tr>
</tbody>
</table>

Figure 2. Endoscopic removal of polyp, Patient 4. Awake fibrocystic intubation was performed over bronchoscope. Slotted benign laryngoscope used to gain exposure (a). The mass was grasped and a GIA stapler was used to transect the mass at its base (b). Long suction bovie was used to achieve hemostasis (c). Patient was extubated and started on a diet on POD #1. d shows polyp after removal. Length was 17.5 cm.

REFERENCES