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Fibrovascular Polyp of the Esophagus in Infant

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A five month female was referred complaining of intermittent vomiting with protrusion of a sausage-like mass through the oral cavity. Esophageal endoscopy and esophagogram revealed a mass in the upper esophagus, which was diagnosed as a fibrovascular polyp. Under general anesthesia, the mass was grasped through the oral cavity with a forcep and ligated and excised at the base, where a stump arose from the posterior wall of the cervical esophagus. The pathology was confirmed as a fibrovascular polyp, which is a rare benign esophageal lesion occurring mostly in adult males, and has not been reported in infancy.

Key Words: Esophageal endoscopy, fibrovascular polyp

INTRODUCTION

Benign tumors of the esophagus are rare disease entities[1] and are classified as either intramural or intraluminal tumors. Tumors such as leiomyoma, neurofibroma, and lipoma are common tumors of the intramural type, and fibrovascular polyp (FVP) is the most common intraluminal tumor. FVP is a slow growing tumor, which often fails to produce symptoms until it has become massive in size in an elongated configuration. It occurs predominantly in adult males,[2] and death from asphyxia caused by laryngeal impaction by a regurgitated polyp is the most disastrous complication. Symptoms are induced by mechanical obstruction,[1,3] although there is no known published data regarding the possible influence of the tumor on esophageal motor function.

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CASE REPORT

A 5 month female was referred to the department of chest surgery to evaluate a protruding mass from her mouth. She was relatively healthy until she developed intermittent vomiting with a sausage-like mass protruding through the oral cavity, that her mother initially believed was her protruding tongue. An endoscopy and esophagogram showed an elongated mass with a narrow stalk originating from the upper esophagus. A decision was made to perform an endoscopy under general anesthesia in order to define the exact location of the stalk. After pushing down the tongue with a laryngoscope, the larynx was evaluated. The mass was connected to a narrow stalk originating from the posterior wall of the cervical esophagus, and was almost completely obstructing the lumen of the esophagus. The mass was grasped and pulled out through the oral cavity with a forcep (Fig. 1), and the base of the stalk was clearly visible. The mass was 4 × 1.5

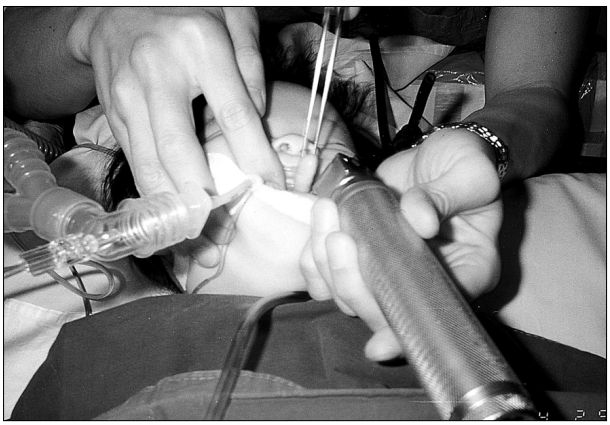

Fig. 1. The mass was grasped with a forcep after an endotracheal intubation and pulled out transorally to ligate the origin of the stump.

× 1.5 cm and hard in consistency (Fig. 2) and the stalk originated from the posterior wall just above the level of the inferior constrictor muscle. A nelaton catheter was passed through the nasal ostium to the oral cavity and the catheter was pulled antero-superiorly to clearly expose the base of the stalk, which was seen behind the uvulae. The stalk was double ligated at its base with a silk tie and a suture tie, and the remnant of the stalk on the wall of esophagus was electrocauterized to avoid postoperative bleeding. The pathologic gross findings showed a polypoid smooth whitish-gray mass with glistening cut surface, and microscopic findings showed a mixture of loose fibrous tissue associated with fatty and myxomatous change (Fig. 3). The mucous membrane consisted of squamous epithelium and the mass was diagnosed as a fibrovascular polyp. During the one-year follow up, she has been healthy without any symptoms.

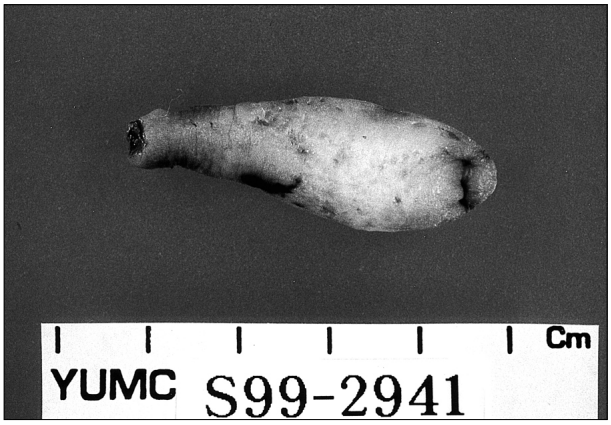

Fig. 2. The mass was hard in consistency and 4×1.5×1.5 cm in size. The stalk originated from the posterior wall just above the inferior constrictor muscle.

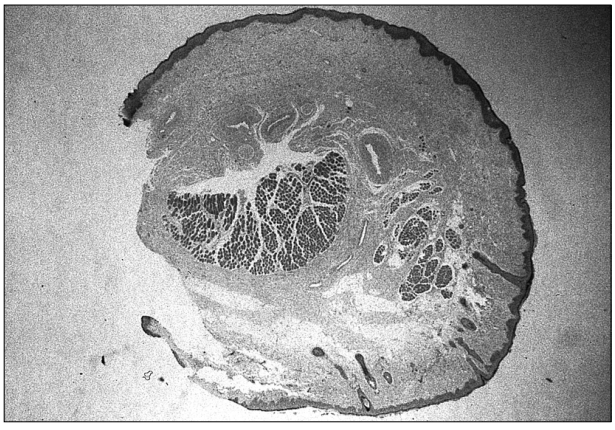

Fig. 3. The microscopic finding of a resected polyp showing a mixture of loose fibrous tissue associated with fatty and myxomatous change (H & E, ×10).

DISCUSSION

Giant fibrovascular polyp of the esophagus is a very rare benign esophageal tumor. In the past, it had a number of names, such as, fibroepithelial polyp, pedunculated lipoma, fibroma, and fibrolipoma. It has been reported to be more common in men and have a peak incidence in the sixth to seventh decades.[2,3] They usually develop just inferior to the cricopharyngeal muscle[4,5] of the esophagus as an intraluminal structure. Laimer-Haeckemann, or Laimer's triangle, which is an area of muscular deficiency of the upper esophagus, has been assumed to be the site of origin of FVP.[6] The mass elongates distally in the digestive tract due to peristaltic forces in addition to traction created by the swallowing of food.[5]

The most common complaints are dysphagia, substernal discomfort, globus sensation, and weight loss, although many tend to be asymptomatic until the polyp approaches a dimension to about 7 cm in length.[7] The most feared complication of FVP is a laryngeal obstruction resulting in asphyxia, and this was especially the case in this patient since she was only five months old. Conservative treatment without surgical resection might have induced a sudden airway obstruction.

According to Penagini et al.,[8] a computerized tomographic scan showing a mass with the density of connective tissue filling most of the esophagus is usually a FVP, and since it is nearly always attached to the cervical esophagus, it is recommended that the mass be resected by esophagotomy using a cervical route. However, the surgical approach in this case was through the transoral route, because the tumor was easily seen and grasped transorally by pushing down the tongue with a laryngoscope. If the location of the origin of the stump had been higher than or lower then she probably would have undergone resection by esophagotomy. However, pulling the uvulae anterosuperiorly with a nelaton catheter greatly exposed the pharynx and larynx allowing

clear identification of the origin of the stump.

FVPs can grow to be quite large and may become highly vascular, and simple electrocoagulation of a stalk can be inadequate to ensure safe hemostasis postoperatively. Moreover, a failure to adequately control the stump site may lead to a disastrous outcome. Most of the cases reported are adult males, and we believe this patient is the youngest ever reported with a diagnosis of a fibrovascular polyp of the esophagus.

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