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# Liposarcoma Arising in a Giant Lipomatous Polyp of the Esophagus

Young-Tae Bak, M.D., Jin Ho Kim, M.D., Jong Guk Kim, M.D. and Chang Hong Lee, M.D.

*Department of Internal Medicine, Korea University College of Medicine, Seoul, Korea*

Kap No Lee, M.D.

*Department of Clinical Pathology*

Young Ho Choi, M.D. and Hark Jei Kim, M.D.

*Department of Thoracic and Cardiovascular Surgery*

*A case of liposarcoma in a giant pedunculated lipoma of the esophagus in a 49-year-old Korean woman who presented intermittent swallowing difficulty for 3 years is reported. Endoscopy and esophagography revealed that a giant smooth longitudinal tumor mass almost entirely occupied the esophageal lumen. A total esohagectomy was done. The tumor was 20 cm in length and 7 cm in average diameter with an obvious stalk measuring 3 cm in length and 1 cm in diameter. Microscopic examination disclosed a lipoma with focal ulceration and liposarcomatous change infiltrating into interstitial fibrous tissue at its distal end.*

Key Words: *Liposarcoma, Esophagus, Lipomatous Polyp, Pedunculated lipoma*

## INTRODUCTION

Benign pedunculated esophageal tumors are rare[1-12] and pedunculated malignant esophageal tumors are extremely rare[3,6]. Only one case report of pedunculated esophageal liposarcoma was found in the literature.[14] We report the first case of a lipomatous polyp with liposarcomatous change.

## CASE REPORT

A 49-year-old Korean woman presented intermittent swallowing difficulty, especially when eating solid foods, for the duration of 3 years. The symptom had been aggravated for the last 5 months. Anorexia, nausea and weight loss developed in the 3 months before admission. Other complaints were palpitation and chest discomfort for a year before admission.

Physical examination revealed that the vital signs were stable except the body temperature which was 38.8°C. She appeared slightly pale. Neck veins and superficial veins of the upper anterior chest wall were slightly engorged. The patient appeared unremarkable otherwise.

Laboratory data revealed microcytic and hypochromic anemia with hemoglobin of 86 g/L. The white blood cell count was 12.3×10/L. Serum protein was 55 g/L and albumin was 24 g/L. Other chemistry results, including thyroid function test, were within normal range. The urinalysis, serum antimicrosomal antibody and antithyroglobulin antibody were within normal limits.

The chest x-ray showed mediastinal widening with an air shadow within it. Esophagography revealed massive dilatation of the esophagus with a huge sausage-shaped filling defect along almost the entire length of the esophagus (Fig. 1). On esophagoscopy, a huge smooth elongated mass, filling almost the entire lumen of the esophagus, was found. The tumor appeared to be covered by smooth

*Adress reprint requests: Young-Tae Bak, MD, Department of Internal Medicine, Guro Hospital, Korea University College of Medicine, 80 Guro-dong, Guro-gu, Seoul 152-050, Korea*

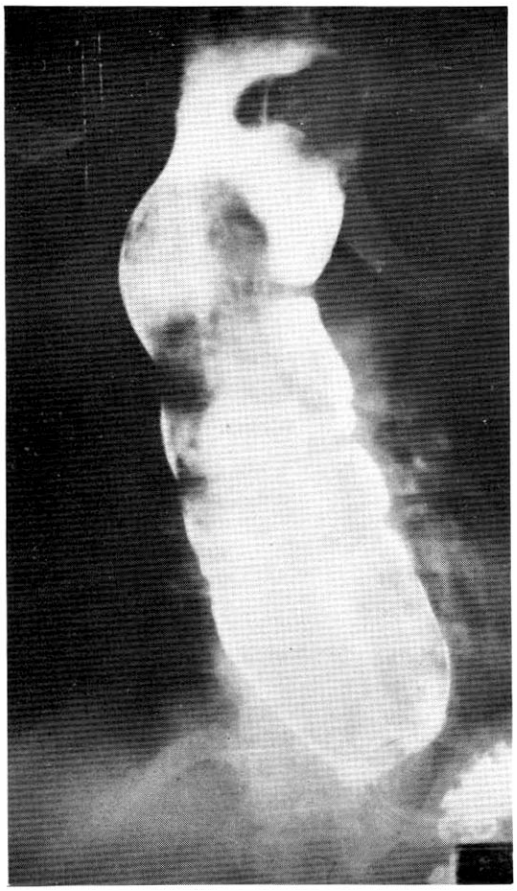

Fig. 1. *Barium esophagogram shows the massively dilated esophagus with a huge sausage-shaped filling defect along almost the entire length of the esophagus.*

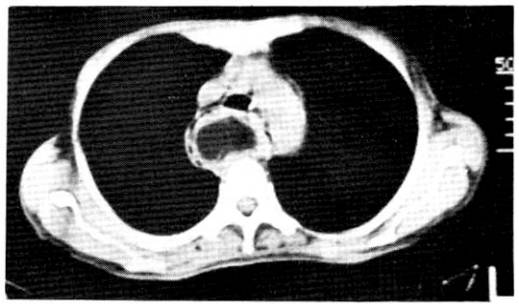

Fig. 2. *Computerized tomogram of the chest demonstrates a huge intraluminal low density mass in the esophagus.*


Fig. 3. *Total esophagectomy specimen shows a pedunculated mass of 20 cm in length and 7 cm in diameter with a stalk 3 cm in length and 1 cm in diameter (E: esophagus; M: mass).*

mucosa resembling the normal esophageal mucosa. The proximal end of the mass was lobulated and there was bluish discoloration at its distal end. The tumor was too large to be removed by an endoscopic procedure. The computerized tomogram of the chest demonstrated a huge esophageal intraluminal mass. Fatty component was suggested to be the main constituent of its upper portion (Fig. 2).

A total esophagectomy and esophago-cologastrostomy were performed. The mass was 20 cm in length, 7 cm in diameter and had a stalk measuring 3 cm in length and 1 cm in diameter just below the pharyngoesophageal junction (Fig. 3). The proximal end of the mass was lobulated. It was mostly covered by grossly unremarkable smooth mucosa with ulceration and necrosis at the distal end. The pathological examination disclosed lipoma with sarcomatous change at the distal end with interstitial infiltration of the well differentiated liposarcoma cells into the adjacent lipomatous area (Fig. 4).

There was no evidence of invasion at the stalk or metastasis to other sites. Except for a leakage from the proximal anastomosis site, which required another operation on the 8th postoperative day, the patient recovered and was discharged from the hospital. She remained well and was on a regular diet for the following 7 months until now.

## DISCUSSION

Benign tumors of the esophagus usually arise

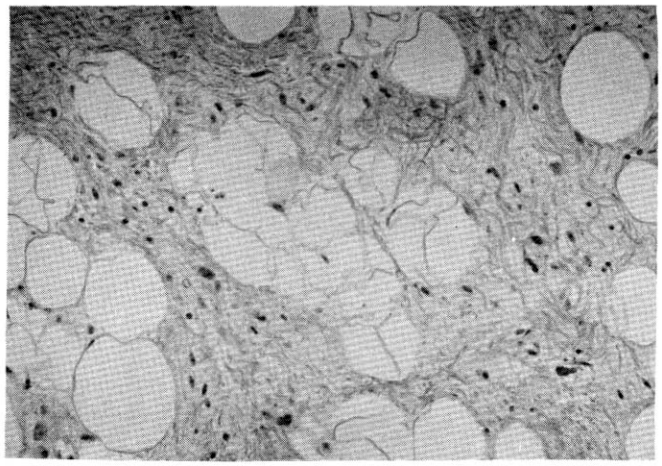

*Fig. 4. Microscopic finding shows well differentiated liposarcoma (H&E, x200).*

from the lower portion of the esophagus. But the pedunculated tumors commonly arise from the upper fourth of the esophagus.[3-5] The wall of the upper portion of the esophagus is thinner and is habitually approximated by tonic muscular contractions. The peristaltic action of the esophagus tends to elongate and mold the tumor and gives rise to a pedicle.[3,4] These intraluminal pedunculated tumors are largely mesenchymal in origin. The reported cases were lipomas, pedunculated lipomas, fibrolipomas, fibrovascular polyps, and combinations of these terms.[11]

Squamous cell carcinoma, adenocarcinoma and leiomyosarcoma were also reported in the pedunculated tumors of the esophagus. But it has not been proved whether they are malignant tranformations from benign tumors or malignacy de novo.[3,6,13]

Primary liposarcomas may arise wherever adipose tissue is present. The esophageal wall does have a small amount of adipose tissue. As expected, there are several reports of esophageal lipomas[1,2,4,6-8] and only one report of liposarcoma of the esophagus.[14] However, there has been no report of liposarcoma arising in the lipomatous polyp. This is the first case to be reported.

The symptoms of the pedunculated tumors are sometimes so minimal that leads to a delay in the diagnosis until they became large enough to produce serious symptoms. The symptoms of all neoplasms of the esophagus are practically the same and one cannot make a diagnosis from the symptoms. Neoplasms, when large enough, may produce stenosis with severe dysphagia, regurgitation of food and marked dilatation of the esophagus. A pedunculated tumor itself may be regurgitated into the oral cavity or into the larynx causing cough, hoarseness, dyspnea or even death.[1-4, 7-12]

In the esophagogram, the dilatation of the esophagus can incorrectly suggest achalasia if the tumor itself is overlooked. Even endoscopy can miss the tumor, and a biopsy may miss the exact nature of the tumor as it is covered with normal epithelium.[12]

Once the pedunculated tumor of the esophagus is diagnosed, resection is indicated because of progressive dysphagia, possible fatal regurgitation, possible bleeding and possible chance of malignancy. Surgical removal through cervical esophagotomy for the larger tumors or endoscopic removal for the smaller ones is usually known to be sufficient. But because of the frequent presence of large vessels in the stalk, the direct surgical approach is more prudent and is the treatment of choice for most pedunculated esophageal polyps except for smaller ones.[9-12] There is frequent local recurrence of liposarcomas of other organs[14] and meticulous follow-up should be done.

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