

An Unusual Case of an Esophageal Polyp

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Abstract

Esophageal polyps are often benign tumors that occur in the cervical esophagus. In this case, we discuss a large esophageal polyp in a 68-year-old male who presented with signs of anemia that was found to have a large esophageal mass. The mass measured 4X7 cm endoscopically with a distinct stalk originating from the mucosa at 20 cm from the incisors. After several attempts at endoscopic removal, cardiothoracic surgery was consulted. Given the size and location of the lesion, the esophageal polyp was removed through a left neck exploration and esophagotomy. Histopathological examination of the tumor showed squamous cell carcinoma with associated malignant spindle cell stroma. No recurrence was detected over 1 year follow up. This case highlights the several surgical approaches the resection of a large esophageal polyp and the need to follow such patients.

Introduction

Polyps can develop at any portion of the gastrointestinal tract and are most common in the colon. They are macroscopic, well-demarcated projections of epithelium above the mucosa with a fibro vascular core [1]. Often, the majority of these lesions are intraluminal. In the esophagus, an overwhelming majority of these polyps are benign lesions originating from the cervical esophagus [2,3]. They can often remain indolent for a long time before present with a wide variety of symptoms. Symptoms are typically associated with the size and location of the lesion. While polyps more commonly become neoplastic in the colon, a rare percentage of these lesions have the ability to develop into a malignancy in the esophagus [1]. We present the diagnostic work-up, operative management, and postoperative course unusual case of an esophageal polyp.

Case Description

A 68-year-old male presented to his primary care physician with episodes of dizziness and fatigue for several months. A complete blood count panel was significant for anemia. He was therefore referred to gastroenterology where he was scheduled for endoscopy. On the day of endoscopy, additional laboratory results suggested a continued drop in hemoglobin. Upon upper endoscopy, he was noted to have a 4 cm X 7 cm mass in the proximal thoracic esophagus. A well demarcated stalk was identified at 20 cm from the incisors, with the mass extending to 27 cm from the incisors.

The patient was observed for some time until a CT scan of the chest confirmed this lesion in the esophagus. The location and size of the mass prompted gastroenterology to consult otolaryngology intraoperatively. The patient was noted to have extensive esophagitis as well as several large pieces of digest food. Given these findings, resection of the esophageal polyp was aborted and the patient was referred to thoracic surgery clinic.

A barium swallow was obtained for additional work-up which showed a filling defect in the proximal esophagus outlining a lengthy stalk arising from the esophagus at the level of the cricopharyngeus (Figure 1A-B). The patient was brought to the operating room for endoscopic evaluation and an attempted endoluminal excision. However, upon inspection of the mass, there were several areas of nodularity suspicious for malignancy. Intraoperative frozen pathology of multiple biopsies taken from these suspicious locations of the pedunculated mass were found to be highly suspicious for malignancy. Therefore, the case was aborted to permit full pathologic analysis and staging evaluation. Ultimately, the final pathology identified inflamed squamous mucosa with reactive epithelial atypia and was negative for malignancy. The patient was taken back to the operating room where multiple attempts at snaring the lesion was unsuccessful give the sheer girth of the polyp (Figure 1C). Next, attempts were directed to cauterize the stalk to detach the lesion from the mucosa. However, due to the fear of thermal injury to the esophagus and the close vicinity to the cricopharyngeus, the operation was again

aborted (Figure 1D).

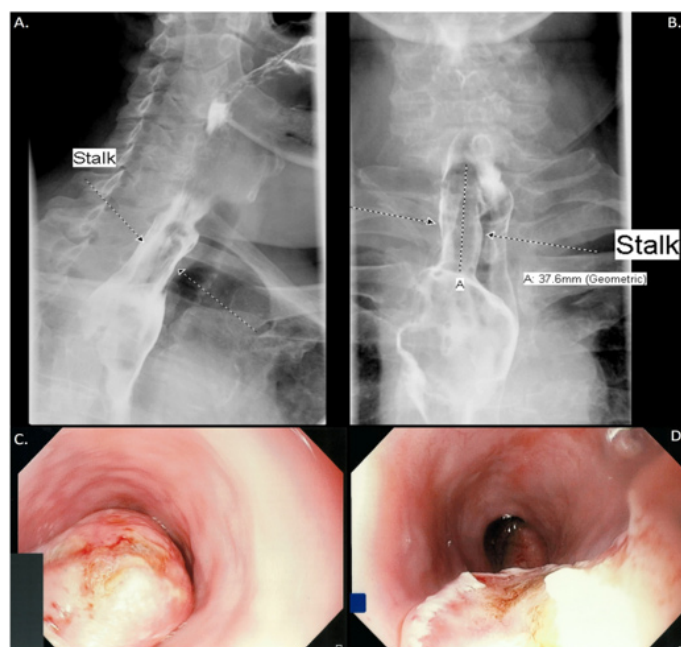


Figure 1: A-B: Barium swallow was obtained identifying the elongated shape of the esophageal polyp with evidence of a stalk. C-D: Upon esophagoscopy, the girth and length of the esophageal polyp was noted to along with the base of the stalk.

Therefore, a final attempt via a left neck exploration with creation of an esophagotomy was planned to achieve the complete removal of the esophageal polyp. The esophagus was circumferentially dissected and encircled with a penrose drain for retraction purposes. A 4 cm longitudinal esophagotomy was created along the lines of the longitudinal fibers. The stalk of the pedunculated mass was divided, over-sewn with an absorbable suture, and cauterized. The mass was removed from the esophagus and the esophagotomy was closed in two layers. A neck drain was left in the surgical site and the skin and subcutaneous tissues were loosely reapproximated. A barium esophagram was obtained on post-operative day 2 which showed no evidence of leak. The patient was discharged on post-operative day 5 after the neck drain was removed.

Final pathology was positive for squamous cell carcinoma with an associated malignant spindle cell stromal component. There was a heavy burden of lymphocytic infiltrate found throughout the mass along with several foci of inflammation. The stalk was negative for malignancy. Due to these unusual findings, this case was presented at the institutional tumor board and observation was ultimately decided. The patient subsequently underwent an EUS with an FNA biopsy of a paratracheal node which was negative for malignancy. A 3 month follow up PET-CT scan was obtained with increased FDG avidity at the surgical site. Therefore, the patient

underwent an additional upper endoscopy and biopsies which were also negative for malignancy.

Discussion

Esophageal polyps are defined in the literature as macroscopic, well-demarcated projections of epithelial tissue above the mucosa with a fibrovascular core. The most common type of esophageal polyp is the fibrovascular polyp, an intraluminal pedunculated mass that can often become symptomatic as they continue to grow in size. In a large case series of 16 patients, all lesions projected from a stalk that originates more commonly from the cervical esophagus [2]. All 16 patients were symptomatic with the majority experiencing dysphagia (87%). While majority of esophageal polyps in the literature are benign, there is a rare potential for malignancy. Brock et al reported a 3.25% incidence rate of polypoid esophageal adenocarcinoma in a retrospective series of 400 consecutive patients in who underwent esophagectomy for adenocarcinoma. Patients with centrally ulcerated tumors with protruding borders were excluded from this series. Nearly half of the patients presented with GI bleed. Several of these tumors were pathologic stage 2 disease.

Our case stresses several points that are important in the care of patients with large esophageal polyps. First, preoperative work-up is of vital importance to choose the correct approach for resection. Barium swallow along with imaging may be helpful in identifying the contour and size of these lesions. These can help delineate anatomic structures such as stalks at the base of the lesion. In Brock et al., while several of the histologic and gross figures depicted a focal point at which the lesions were protruding from the esophageal wall, there was no real mention of a stalk in any of their 13 cases. In the case presented in this manuscript, a stalk was clearly present at the base of the lesion originating from the esophageal mucosa both on imaging and on endoscopy. Second, patients need to be consented for both endoscopic as well as surgical approaches. While certain features such as stalks may sway physicians towards endoscopic removal, there are limits to this approach. In the current report, several endoscopic approaches were aborted because of the sheer size and contour of the mass. Therefore, in patients with difficult esophageal polyps, a cervical neck incision with an esophagotomy may be the only successful approach.

While majority of these polyps are indeed benign, there is potential for malignancy. Currently in the literature, there is no evidence for correlation of size and malignancy potential in esophageal polyps. However, in the colorectal literature, larger polyps have a greater likelihood of being cancerous [4]. Therefore, we advocate for aggressive R0 resection of these lesions. The presence of a stalk may increase the chances of a local resection. These lesions, however, should not be underestimated at the time of diagnosis even with the presence of a stalk. Extensive work

up including computed tomography and barium esophagram can provide prudent information regarding structural characteristics of the lesion. We recommend further observation and follow up to ensure there is no residual disease. PET-CT scanning can help identify any metastatic lesions as well as FDG avidity at the surgical site. Esophageal ultrasound can further help identify residual local disease in the esophagus.

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None of the authors have any conflicting interests.

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