Novel treatment (new drug/intervention; established drug/procedure in new situation)

Two-stage removal of giant fibrovascular polyp of the oesophagus

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Summary

A patient presented with several months' history of dysphagia, chest pain, symptoms of regurgitation and weight loss. He underwent an upper gastrointestinal endoscopy, which revealed a giant polyp of the oesophagus. After confirming the diagnosis of giant fibrovascular polyp of the oesophagus, the patient underwent a two-stage division of the stalk and retrieval of the polyp. The postoperative period was uneventful and the patient was asymptomatic at the time of discharge. He is being followed up with a plan for surveillance endoscopy in a year.

BACKGROUND

Giant fibrovascular polyp (FVP) accounts for 1–2% of the benign lesions of the oesophagus. Only around 100 such cases have been reported in literature. The two-stage approach method, used in this case, has only been reported once in the past. The rarity of the disease, the diagnostic difficulty and the innovative operative approach were the factors that make this case interesting and worthy of publication.

CASE PRESENTATION

A 55-year-old British man presented with a few months history of dysphagia. At the time of presentation he was only tolerating a semisolid diet. He also had associated symptoms of regurgitation, including heart burn, and had lost a stone in weight over 3 months.

He did not have any cardiorespiratory co-morbidity. There was no history of operations or investigations of the gastrointestinal system in the past. He stopped smoking 25

Figure 1 CT scan showing intraluminal mass in the oesophagus.

Figure 2 Excised giant fibrovascular polyp of the oesophagus.

Figure 3 Histopathology of resected specimen.

years ago and there was no history of similar disease in the family.

INVESTIGATIONS

The patient initially underwent an upper gastrointestinal endoscopy, which revealed a large polyp arising from the cervical oesophagus. However, the base of the polyp was not visualised on endoscopy.

CT scan of the thorax and abdomen revealed a polypoid filling defect of the oesophagus (figure 1) measuring 20 cm and containing prominent central vessels.

Barium swallow showed a polypoid filling defect extending from the level of C7/T1 to within a few centimetres of the gastro-oesophageal junction.

DIFFERENTIAL DIAGNOSIS

Giant FVP of the oesophagus and pedunculated oesophageal cancer.

TREATMENT

Endoscopic removal of the polyp was deemed unsuitable due to the size of the polyp. The surgical management involved access via left cervical incision along the anterior border of the left sternocleidomastoid muscle. After palpating the polyp, a transverse oesophagotomy was made and the broad-based stalk of the polyp, which measured 3–4 cm, was divided with a vascular stapler. Attempted delivery of the polyp through the oesophagotomy was unsuccessful and the oesophagotomy was closed. The polyp was retrieved in a bag via laparoscopic gastrotomy (figure 2), which was subsequently closed. Histopathology of the specimen confirmed it to be giant FVP of the oesophagus (figure 3).

OUTCOME AND FOLLOW-UP

The patient had an uneventful recovery and was asymptomatic at the time of discharge. He is being followed up in the outpatient clinic and is due to have a surveillance endoscopy in a year.

DISCUSSION

FVPs account for about 1% of all benign oesophageal lesions.¹ Around 100 cases of giant FVPs have been reported in various literatures. Based on the histology, these lesions have been variously described as lipofibroma, fibromyxoma, fibrolipoma, hamartoma, fibroepithelial polyp, and so forth, until together they have been labelled as FVP.² They are composed of loose and dense connective tissue, scattered adipocytes and fat globules, and are lined by non-keratinised stratified squamous epithelium. They are highly vascular and often have prominent central vessels. Giant FVPs most commonly occur in middle-aged and older men.^{3,4}

They mostly originate in the upper part of the oesophagus with particular predilection for the area below the cricopharyngeus called Laimer–Haeckermann triangle.⁵ Most of the pedicle was attached to the posterior wall.⁶ Over the

years the oesophageal peristalsis and the traction during swallowing acts on the loose tissue in this area allowing the polyp to become larger.¹

The most common presenting symptom is the development of dysphagia.⁶ Other associated symptoms are those of chest pain, symptoms of regurgitation and weight loss. Ulceration of the polyp leading to bleeding and asphyxiation are the less common but more dangerous presentations of these polyps. The polyps are known to occur in multiple numbers and to recur.^{1,7} Malignant degeneration of these polyps is very rare with only a few cases reported.^{6,7}

Multiple investigative modalities are required to diagnose giant FVP of the oesophagus. As they are lined by stratified squamous epithelium like the rest of the oesophagus, around 25% of them are missed on endoscopy⁸ where they are mistaken for the normal wall of the oesophagus. The pedicle could be missed on endoscopy leading to a misdiagnosis of malignant lesion.⁹ Barium swallow usually reveals a characteristic sausage-shaped intraluminal filling defect. However, they are not ideal to demonstrate the pedicle or its attachment.¹⁰ Both CT and MRI have the advantage of being non-invasive investigations yielding valuable information towards the diagnosis of these tumours. CT scan may reveal the heterogeneous nature of the intraluminal mass.¹¹ As in our case, the CT scan can also reveal the large feeding central artery, which helps in operative management. MRI may show high signal intensity on T1-weighted image, which is typical of FVPs.¹² Endoscopic ultrasonography is useful to provide information on the size and vascularity of the stalk, but also has the advantage of undertaking fine needle aspiration cytology towards confirmation of the diagnosis.¹

For the relief of symptoms, as well as to prevent complications like bleeding and asphyxiation, resection of the polyp is mainstay of treatment. FVPs can be removed by endoscopic or operative approach or a combination of the two. In general, removal of polyps that are short and have a diameter smaller than 2 cm can be attempted via endoscopic approach.³ Operative excision and removal can be attempted via pharyngotomy, cervical oesophagotomy, thoracic oesophagotomy or gastrotomy. Sometimes more than one access is required, as in this case. There have only been two reported cases of removal of polyp using two surgical approaches^{3,13} and one involving three different surgical approaches.¹ Another similar case in the same institution was managed by endoscopic division of the pedicle of the polyp and retrieval via laparoscopic gastrotomy. The primary difficulties faced with the removal of the polyp are the vascularity of the stalk and its control as well as the size of the polyp and its retrieval through the narrow oesophagotomy. The size of the polyp also restricts the ability to snare the stalk and retrieve the polyp via endoscopy.

While there have been reported cases of recurrence of giant FVP of the oesophagus, there is no consensus on further surveillance after removal of the polyp. One of the two cases of giant FVP encountered in this institution has already had a follow-up endoscopy, which was normal, and the other case is awaiting the same.

Learning points

- ▶ Giant FVP is a rare benign lesion of oesophagus, which commonly presents with dysphagia.
- ▶ They are easily missed on endoscopy and preoperative identification of the base of the stalk of the polyp is vital.
- ▶ Management of giant FVP of the oesophagus involves endoscopic or operative removal of the polyp depending on its size.
- ▶ They have the potential for recurrence or to undergo malignant change.

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Competing interests None.

Patient consent Not obtained.

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