

Case report

Distal Esophageal Squamous Cell Carcinoma: A rare, but possible localization

Abstract

Aim: To report a rare but possible localization of a distal esophageal squamous cell carcinoma.

Case Presentation : A 71-year-old man with severe progressive dysphagia and epigastric pain for 2 months. Endoscopy revealed normal esophagus up to 37 cm from the dental arch where a tight stenosis that prevents the endoscope from advancing is visualized. The histopathological result revealed squamous cell carcinoma. Tumor Board decided to initiate neoadjuvant chemoradiotherapy followed by surgery.

Conclusion: Management of patients with esophagus tumors is challenging. Localization of squamous cell carcinoma in the distal esophagus, although rarer, is possible.

Keywords: *esophageal squamous cell carcinoma; dysphagia; biopsy; esophageal stent; esophagectomy*

1. INTRODUCTION

“Esophagus cancer is the ninth most common malignancy and ranks as the sixth most frequent cause of death cancer in the world, constituting 7% of all gastrointestinal cancers”[1]. “Esophagus cancer exists in two main forms with different ethiological and pathological characteristics: esophageal squamous cell carcinoma (ESCC) and esophageal adenocarcinoma (EADC)”[2]. “ESCC is the most common form of esophageal cancer worldwide and the most prevalent type of oesophageal cancer in the East (Asian and Eastern European countries)”[3]. “Primary risk factors of oesophageal cancer development (squamous cell carcinoma) are smoking and alcohol consumption”[4]. “Other risk factors include: previous treatment due to squamous cell carcinoma of the head and neck or lung, oesophageal post caustics burning, oesophageal achalasia, Plummer-Vinson syndrome and genetically-dependent hand-foot hyperkeratosis”[5]. “ESCC is located mainly in the upper and middle parts of the oesophagus, while EADC is usually diagnosed in the lower part. ESCC occurs in 30% of the distal esophagus”[2]. “In the AJCC 8th edition, tumors involving the EGJ that have midpoint within the proximal 2 cm of the cardia/proximal stomach are staged as esophageal cancers”[6].

2. CASE PRESENTATION

2.1. Clinical history

A 71-year-old man presented to our clinic with severe progressive dysphagia for solid food felt substernal, epigastric pain and weight loss (5 kg) for 2 months. He's a smoker (50 cigarettes/years) and mild alcohol intake (60 grams alcohol per week). Diagnostic evaluation included a complete medical history, physical examination, laboratory blood analyses and pulmonary and cardiac function tests. All laboratory exams were normal, except the lower level of albumin 29 g/L. The patient underwent esophagogastrosopy with biopsies, chest-abdomen and pelvis CT with contrast enhancement and EUS. Endoscopy revealed normal esophagus up to 37 cm from the dental arch where a tight stenosis (Fig.1) that prevents the endoscope from advancing is visualized. A Savary guide is inserted and dilated with Savary disposable bougie dilator of 10, 12 and 14 Fr. After that, multiple biopsies are taken from the lower esophagus (Fig.2) and in retroversion, from the level of cardia and finally, a metallic esophageal stent is inserted (Fig.3) to allow the patient to feed.

The histopathological result revealed esophageal mucosa with infiltrative carcinoma tumor proliferation (Fig.4) and immunohistochemistry established the diagnosis of squamous cell carcinoma (CK7 negative; CK56 cytoplasmic positive in tumor tissue; p63 positive nuclear in tumor cells). A chest CT revealed a stenotic circumferential parietal thickening affecting the distal esophagus for a length of ~35-40 mm. Also, two lymph node images at the lower periesophageal level and the abdominal-pelvic CT examination did not show suggestive images of a secondary determination. EUS revealed a tumor infiltration of muscularis propria. A search screening for other diseases did not show any. The tumor stage was determined according to the TNM staging system (pT2-N1-M0). Being an advanced local esophageal cancer, in a patient with good performance status (ECOG 0), the *Tumor Board* decided to initiate neoadjuvant chemo-radiotherapy (two cycles of CDDP and 5-FU) followed by surgery.

After surgery, the patient will be monitored clinically and imaging once every 6 months in the first three years and endoscopically every 4-6 months in the first year. Also, being a squamous cell carcinoma of the esophagus, the patient will perform an ENT examination and an annual bronchoscopy in order to detect a second cancer.

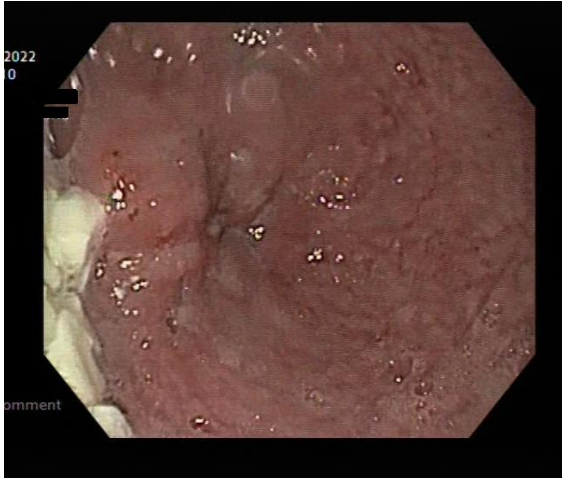


Fig. 1 – Cardia stenosis

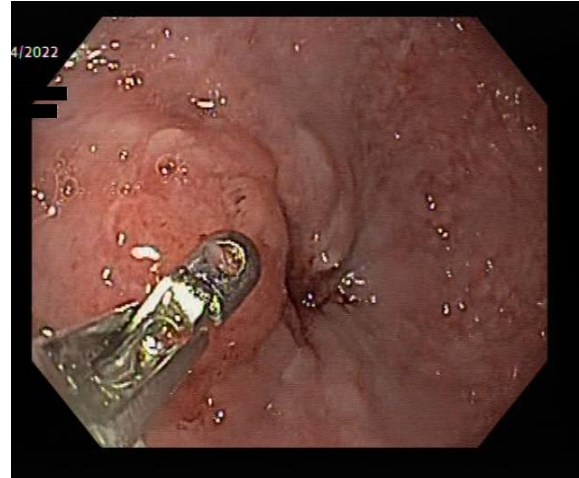


Fig. 2 - Biopsies from the lower esophagus

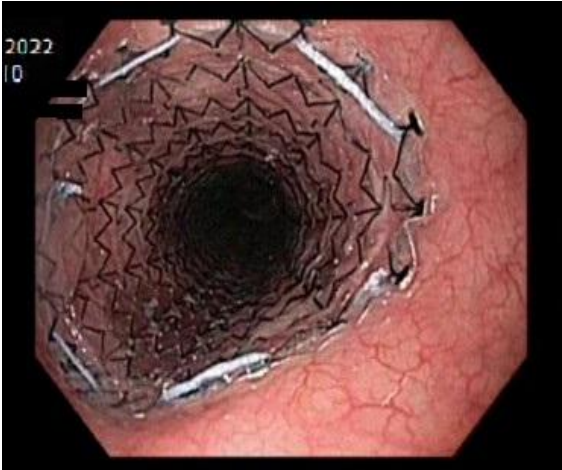


Fig. 3 – Metallic esophageal stent

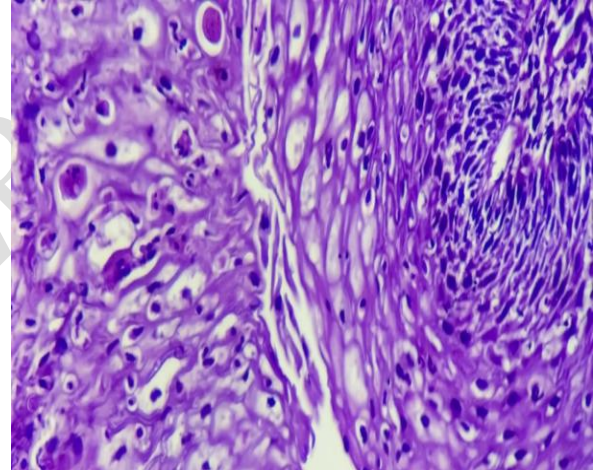


Fig. 4 – Invasive Squamous Cell Carcinoma (100x)

3. DISCUSSION

“The esophagus cancer is a relatively uncommon but extremely lethal malignancy”[7]. “The most common presenting symptoms are dysphagia, odynophagia and weight loss”[8]. “The disease most commonly spreads to adjacent and supraclavicular lymph nodes, liver, lungs, pleura, and bone”[9]. The diagnosis of esophageal cancer is based on the following methods: **the patient’s history** and clinical examination, radiological examination (classic and tomography computerized), digestive endoscopy with biopsy/cytological examination and echo-endoscopy[10]. “Squamous cell carcinomas and adenocarcinomas cannot be distinguished radiographically or endoscopically”[11].

“The certainty diagnosis of esophageal carcinoma is established by digestive endoscopy and histopathological examination. ESCC appears to have a more favorable prognosis with the available non-surgical and surgical interventions compared to EADC”[12]. Surgery is the standard treatment for a candidate with a localized, non-superficial tumor[13]. “In patients with resectable, locally unresectable or borderline unresectable cancer without contraindications to surgery, it is important to consider preoperative radiochemotherapy”[14].

In this case with advanced esophageal cancer, the endoscopy easily diagnosed the esophagus cancer. For a smoker and long-term alcohol consumption, like the patient of this case, the risk of esophageal SCC is increased and this tumor should be always considered during the initial medical assessment. Multidisciplinary approach was used for treating this patient. “The use of preoperative chemotherapy and radiation therapy followed by esophageal resection appears to prolong survival as compared with controls in small, randomized trials and some reports suggest that no additional benefit accrues when surgery is added if significant shrinkage of tumor has been achieved by the chemoradiation combination”[15].

4. CONCLUSION

The prognosis for patients with esophageal carcinoma is poor. Localization of squamous cell carcinoma in the distal esophagus, although rarer, is possible. Surgical treatment consists of resecting the tumor by esophagectomy with eso-gastric/jejunal or eso-colic anastomosis, accompanied by lymph node dissection (mediastinal and coronary gastric). Intervention is difficult, requiring an approach double (both thoracic and abdominal), and should be performed in experienced services. Patients with locally advanced disease should also receive preoperative chemoradiation or perioperative chemotherapy.

LIMITATIONS OF THE STUDY: The limits of our study are represented by the lack of follow-up after chemotherapy and surgical intervention of the patient.

Abbreviations:

- AJCC - American Joint Committee on Cancer
- **CDDP - Cisplatin**
- EADC - Esophageal adenocarcinoma
- ESCC - Esophageal squamous cell carcinoma
- EGJ - Esophagogastric junction
- EUS - Endoscopic ultrasound
- CT - Computer tomography
- **5-FU- Fluorouracil**

STATEMENTS:

Consent for publication: As the corresponding author, I confirm that the manuscript has been read and approved for submission by all co-authors. Conceptualization: L.M.N methodology and resource L.M.N and C.S.G, writing—original draft preparation L.M.N.; writing and editing, C.S.G.; All authors have read and agreed to the published version of the manuscript.

Consent: The informed consent was obtained from the patient for publication and any accompanying images.

Ethical Approval: The treatment strategy/study protocol was approved by a local tumor board/ethics committee.

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