Early View Article: Online published version of an accepted article before publication in the final form.

Journal Name: Journal of Case Reports and Images in Surgery

Type of Article: Case Report

Title: What is the treatment of esophageal stent migration in a schizophrenic patient?

Authors: Yucel Akkas, Baris Dogu Yildiz, Bulent Kocer

doi: To be assigned

Early view version published: December 3, 2016

**How to cite the article:** Akkas Y, Yildiz BD, Kocer B. What is the treatment of esophageal stent migration in a schizophrenic patient?. Journal of Case Reports and Images in Surgery. Forthcoming 2016.

Disclaimer: This manuscript has been accepted for publication. This is a pdf file of the Early View Article. The Early View Article is an online published version of an accepted article before publication in the final form. The proof of this manuscript will be sent to the authors for corrections after which this manuscript will undergo content check, copyediting/proofreading and content formatting to conform to journal's requirements. Please note that during the above publication processes errors in content or presentation may be discovered which will be rectified during manuscript processing. These errors may affect the contents of this manuscript and final published version of this manuscript may be extensively different in content and layout than this Early View Article.
TYPE OF ARTICLE: Case Report

TITLE: What is the Treatment of Esophageal Stent Migration in a Schizophrenic Patient?

AUTHORS:
Yucel Akkas¹, Baris Dogu Yildiz², Bulent Kocer¹

AFFILIATIONS:
¹MD, Department of ¹Thoracic Surgery, Ankara Numune Research and Training Hospital, Ankara, Turkey, email: y.akkas@yahoo.com
²Assoc.Prof, Department of General Surgery, Ankara Numune Research and Training Hospital, Ankara, Turkey, email:baris104@yahoo.com
³Assoc. Prof, Department of Thoracic Surgery, Ankara Numune Research and Training Hospital, Ankara, Turkey, email:drbkocer@gmail.com

CORRESPONDING AUTHOR DETAILS
Yücel AKKAŞ, MD,
Department of Thoracic Surgery, Ankara Numune Research and Training Hospital, Ankara, Turkey,
Email: y.akkas@yahoo.com

Short Running Title: Treatment of Esophageal Stent Migration

Guarantor of Submission: The corresponding author is the guarantor of submission.
**TITLE:** What is the Treatment of Esophageal Stent Migration in a Schizophrenic Patient?

**ABSTRACT**

**Introduction**
In this case report, we describe surgical management of a schizophrenic patient who had a partially broken metallic stent which was placed for benign corrosive stricture.

**Case Report**
We describe surgical management of a 39-years-old-male schizophrenic patient who had a partially broken metallic stent which was placed for benign corrosive stricture. An endoscopy revealed that the stent was partially broken and slipped below the strictured segment of the esophagus. Laparotomy and transhiatal esophagectomy with anastomosis on the neck were performed. In order to protect the anastomosis, wounds, and drains the patient was kept intubated.

**Conclusion**
Radical resection for benign strictures could prevent complications of repetitive stent placement in schizophrenic patients. Keeping the schizophrenic patient intubated under sedation could be a wise strategy to prevent inadvertent violation of the anastomosis.

**Keywords:** Benign stricture, esophagus, stent, schizophrenia
TITLE: What is the Treatment of Esophageal Stent Migration in a Schizophrenic Patient?

INTRODUCTION
Self-expandable metallic or plastic stents are more commonly used for the treatment of benign esophageal strictures as a minimally invasive technique. Unfortunately, this technique is not performed without morbidity or mortalities secondary to complications [1, 2].

In this case report, we describe surgical management of a schizophrenic patient who had a partially broken metallic stent which was placed for benign corrosive stricture.

CASE REPORT
A 39 year-old-male schizophrenic patient had a self-expandable temporary metallic stent placement nine months ago after esophageal stricture secondary to corrosive ingestion in another center. The patient presented to our hospital with dysphagia. The patient was cachectic and malnourished. His complete blood count showed mild anemia and blood biochemistry showed low albumin level. Computerized tomography was done which showed that the stent was migrated to upper stomach (Figure 1).

An upper endoscopy revealed that the stent was partially broken and slipped below the strictured segment of the esophagus. An attempt to remove the stent was undertaken but this was not possible because the broken parts of the stent were embedded inside the esophageal wall which posed the risk of perforation.

The patient was started with parenteral nutrition and when his nutritional status improved surgical intervention was decided with the consent of the family. Laparotomy and transhiatal esophagectomy with anastomosis on the neck were performed. This served both removals of the migrated stent and strictured, neoplasia prone esophagus. The stricture part of the esophagus was 6 cm (Figure 2).

In order to protect the anastomosis, wounds and drains the patient was kept intubated for one week in intensive care unit. On postoperative day 2, the patient had bilateral hemothorax and placement of chest tubes which were removed on postoperative day 5. The patient was extubated at the end seven days, started on
oral feeds and drains removed. The patient was discharged on postoperative day 10 and he was four months out without any complications.

**DISCUSSION**

Esophageal stents (ES) are used for both malignant and benign conditions of the esophagus such as unresectable cancer, fistula, corrosive ingestion, iatrogenic perforation and anastomosis leaks [1, 3].

ES can have early (chest pain, aspiration, bleeding perforation, dysphagia) or late (obstruction, tumor ingrowth, tracheoesophageal fistula etc) complications [1, 3]. Fuccio et al reported their rate of migration as 28.6% [4]. ES mostly migrate to stomach or intestines causing perforation or obstruction and some are even passed out rectally. Our patient only had dysphagia. The patient was not aware of the symptoms due to the schizophrenia. In his history we understand that the patient didn’t go to the hospital for ES controls because of this his ES wasn’t removed in time.

Various techniques are available for removal of broken stents. In contrast to the literature, the stent was partially broken in our patient which caused it to get embedded in the esophageal wall which necessitated surgical intervention. Our case is the 10th case in the review of the literature [3].

Corrosive strictures were occurred 35.1% in healthy population after corrosive ingestion [5]. The diagnosis of psychotic disorders in all corrosive material ingestion rate is 3.7% [6]. Corrosive strictures of esophagus pose a 40% risk of malignancy after 20 to 50 years. This fact when added to the unease of endoscopic interventions in a schizophrenic patient made us decide on a radical surgical procedure [7,8]. Keeping the patient intubated until patency of the anastomosis was verified could be considered as radical. But this was necessary as the patient could disrupt the anastomosis by inappropriate ingestion.

**CONCLUSION**

Radical resection for benign strictures could prevent complications of repetitive stent placement in schizophrenic patients. Keeping the schizophrenic patient intubated
under sedation could be a wise strategy to prevent inadvertent violation of the anastomosis. This treatment method was our personal preference. Treatment approached should be multidisciplinary.

CONFLICT OF INTEREST

There is no any financial interest or any conflict of interest.

AUTHOR’S CONTRIBUTIONS

Yucel Akkas
Group1 - Conception and design, Acquisition of data, Analysis and interpretation of data
Group 2 - Drafting the article, Critical revision of the article
Group 3 - Final approval of the version to be published

Baris Dogu Yildiz
Group 2 - Drafting the article, Critical revision of the article
Group 3 - Final approval of the version to be published

Bulent Kocer
Group 3 - Final approval of the version to be published

REFERENCES


FIGURE LEGENDS

Figure 1: Computed tomography appearance of broken esophageal stent. (Arrow)

Figure 2: Surgical specimen showing the stent (white arrow) and strictured esophagus (black arrow).
FIGURES

Figure 1: Computed tomography appearance of broken esophageal stent (Arrow)
Figure 2: Surgical specimen showing the stent (white arrow) and strictured esophagus (black arrow).