



## SCIENTIFIC LETTER

## Bilateral vocal paralysis secondary to/after an oesophageal self-expandable metal stent (SEMS) placement. A rare complication to be considered



### Parálisis vocal bilateral secundaria/tras colocación de SEMS esofágico. Una complicación rara a ser considerada

SEMS are a palliative alternative for dysphagia secondary to extrinsic compression, in order to allow nutritional intake and to improve the patients' quality of life. The most frequent causes of esophageal extrinsic compression share a malignant etiology.<sup>1</sup>

We present the case of a 61-year-old female patient diagnosed stage IV lung adenocarcinoma in April 2020. Chemotherapy and immunotherapy were initiated. In May

the patient started with dysphagia secondary to extrinsic compression from mediastinal adenopathies visualized.

A palliative esophageal stent placement was requested. Upper endoscopy was performed. Stenosis secondary to extrinsic compression was observed 20 cm from the incisors. With the aid of fluoroscopy, a SEMS (Wallflex-Esophageal 18 mm × 103 mm) was correctly placed distal to the upper esophageal sphincter. No intraprocedural complications were notified and the patient was discharged 24 h post-procedure asymptomatic.

One day later, the patient was admitted referring sudden dyspnea, stridor, dysphonia and oxygen desaturation. Chest-X-rays were performed, identifying the stent correctly positioned and without any apparent complications (migration or perforation). Laryngoscopy revealed bilateral vocal cord paralysis (BVCP). Urgent tracheostomy was performed and intravenous corticosteroids were administered. However, BVCP persisted on the control fibrolaryngoscopy. Withdrawal was requested. It was easily removed five days later with a foreign body forceps. Another fibrolaryngoscopy

Table 1

Authors	Age and stent indication	Stenosis location	Clinical	Prothesis	Stent removal/Outcome
Z.F. Gellad et al	83 Squamous cell cancer	20 cm from the incisors	Stridor 12 hours later	18 mm x 10cm Alimaxx fully covered nitinol stent (Alveolus, Inc., Charlotte North Carolina, USA)	Immediately/Favorable
Tom G. Moreels et al	56 Benign postoperative stenosis of an esophagogastric anastomosis	Pinpoint 2 cm distal to upper esophagic sphincter	Hoarseness and stridor 4 days later	8 mm x 8 cm SEMS	4 days/Improvement in 2 days
Y. Chiche et al.	88 Squamous cell cancer	18 cm from the incisors	Stridor and respiratory failure 24 hours later.	80 mm x 18 mm Niti-S esophageal prosthesis of (Taewoong, Busan, South Korea)	6 days/Favorable
Y. Chiche et al.	58 Compression of mass in trachea, history of lobectomy for lung adenocarcinoma	23 cm from the incisors	Tachypnea and dyspnea appeared immediately after extubation	(Taewoong, Busan, South Korea)	Immediately/Died 6 days later

was performed revealing a moderate improvement in vocal cord movement. Nevertheless, three weeks later the patient died of persistent respiratory insufficiency.

Correct placement of esophageal SEMS is achieved with a success rate of almost 100%. Proximal strictures may be more challenging, but still, several alternatives are available, as for example using narrow-diameter SEMS or even placing biliary SEMS.<sup>2</sup> However, severe complications may develop, mainly recurrence of dysphagia, aspiration pneumonia, hemorrhage, fistulas, perforation or migration.<sup>3</sup>

Transient BVCP secondary to SEMS placement is a very rare complication, with only four cases described in literature (Table 1).<sup>3</sup> Fortunately, a favorable recovery should be expected when treated promptly. Therefore, it must be beared in mind by endoscopists when placing esophageal SEMS.

Physiopathological mechanisms include direct compression from the esophageal stent inducing neuropraxia of the posterior branch of the recurrent laryngeal nerve and/or spasms secondary to local inflammation in the interarytenoid muscles.<sup>4,5</sup>

No recommendations on the therapeutic approach are available but tracheostomy should be aware of respiratory symptoms after SEMS placement in order to remove the stent as soon as possible.

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