

Case Report

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Evaluation and Speech Therapy in Oncological Dysphagia and Paralysis of Recurrential Nerve: Case Report

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ABSTRACT

Background: Dysphagia is a frequent and serious complication of oncological pathologies. It can occur in head and neck neoplasms undergoing demolitive surgery; but also as a complication of radiotherapy treatments of the same district.

Aim: The description of this clinical case highlights how rehabilitation and speech therapy can improve oral nutritional skills.

Materials and Methods: An intensive multidisciplinary rehabilitation was performed initially in hospitalization and then in an outpatient setting with postural and pharyngo-laryngeal district exercises.

Conclusion: The results demonstrated an improvement in swallowing ability and maintenance of oral nutrition, albeit with modification of food consistency. There have been excellent results in improving the quality of life and maintaining the patient's social and family skills.

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Introduction

Dysphagia is a disturbance of one of the main human functions: nutrition and body hydration. It consists of an inability or difficulty in passing nutrients from outside the oral cavity to the stomach. In addition to serious nutritional deficiencies with loss of weight and lean body mass, it exposes to serious complications such as aspiration pneumonia sometimes responsible of death. It occurs in oncology as a frequent and serious complication of head and neck neoplasms subjected or not to demolitive surgery. It can occur as a complication of neoplastic diseases of the central or peripheral nervous system. It often appears subtly as a complication of maxillofacial or neck radiotherapy treatments.

Description of Clinical Case

The study was carried out on the patient GP, 57 years old with a diagnosis of adenocarcinoma of the esophago-gastric junction placed in 2015, for which he underwent chemotherapy and subsequently an esophagectomy.

In 2016 surgery for incisional hernia. In 2017 recurrence of the disease for which he is subjected to new cycle of chemotherapy

interrupted prematurely due to toxicity. He is subjected to PET from which there is evidence of disease progression with involvement of the esophagus, tongue and left lung hilum, aorto-pulmonary window. In October 2017 he underwent a new resection surgery of the residual esophagus, packaging of esophagus-colon-cervical plasty by transposition of the transverse colon and construction of the esophagus-colon-semi-mechanical latero-lateral anastomosis.

Complications of the postoperative course were bilateral vocal chord paralysis, a small cervical anastomotic leak (treated with cervical drainage + antibiotic therapy) and the right pleural effusion (which has undergone percutaneous drainage). This condition created an important swallowing dysfunction. There was a severe reduction in weight and body mass, wich required a jejunostomy (J.P.E.G.) to feed and hydrate the patient.

November 2017 he was admitted to the oncology department for severe septic status. Upon arrival at the Complex Rehabilitation Operative Unit, the patient underwent speech therapy evaluation and, subsequently, intensive rehabilitation training was carried out (3 accesses per day).

The evaluation showed severe dysphagia for all consistencies (DOSS 1), paralysis of the CCs. VV.,

G=3 I=3 R=3 B=3 A=3 S=2, with length of the expiratory flow in phonation of 4 sec.

- increase in vocal intensity and frequency.
- improvement of sensitivity at the level of the palatine pillars.
- restoration of the physiological or at least functional swallowing act.

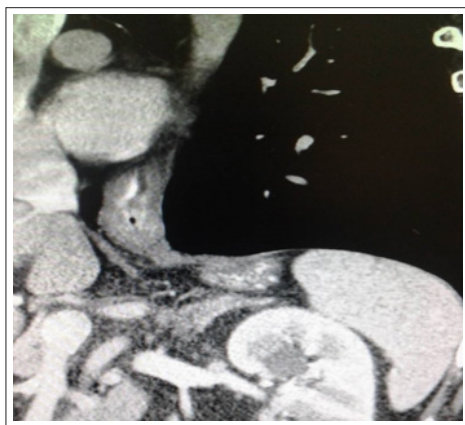


Figure 1



Figure 2

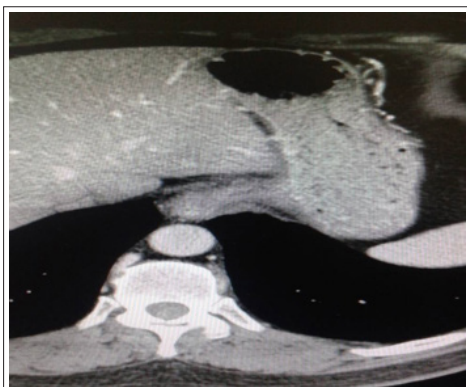


Figure 3

Dysphagia assessment procedures

- Clinical evaluation of swallowing,
- F.E.E.S.,
- Examination of Fabbro's orofacial practices,
- Logemann protocol,
- D.O.S.S. scale,
- G.I.R.B.A.S. scale,
- European quality of life scale.

Objectives of rehabilitation treatment:

- improvement of chordal closure.
- improvement of pneumophonic coordination and increase of flow length phonatory.

Materials and Methods

Dysphagia interventions

Intensive rehabilitation training was carried out.

The Following Exercises Were Practiced

- forced apnea and production of glottic sounds to favor the adduction of the vocal cords and ensure greater protection when swallowing.
- dry swallows with use of supraglottic compensatory manoeuvre, thermal stimulation with ice in order to increase the sensitivity at the level of the palatal abutments.
- passive/active stimulation of the muscles of the BLF district to reinforce tone muscle and decrease the pre-swallowing discharge.
- oral stimulation and voluntary activation of the oral phase (chewing, moving the bolus in the oral cavity).

Furthermore, after an intermediate assessment of swallowing skills, foods were introduced more palatable (previously agreed between the speech therapist and nutritionist) and of modified consistencies, with the aim of gradually resuming power for Oral nutrition.

Dysphonia interventions

Intensive rehabilitation training was carried out.

The Following Exercises Were Practiced:

- costo-diaphragmatic breathing in order to improve pneumophonic agreement.
- silent expiratory murmur exercises in order to increase the length of the flow phonatory.
- forced apnea and production of glottic sounds and vocalizations in order to get better
- vocal cord adduction and adequate vocal timbre.
- reading aloud and speaking in order to generalize flow management skills Phonatory.

Discussion

Early management is possible if this complication is known and is suspected due to weight loss or weave during meals. Instrumental confirmation with Fiberoptic endoscopic evaluation or swallowing (F.E.E.S.) or with video fluorography (V.F.G.) is the starting point of intensive care before the appearance of aspiration pneumonia and serious weight and body mass losses.

An intensive multidisciplinary rehabilitation was performed first in hospitalization and then on an outpatient basis with postural and pharyngolaryngeal district exercises

The results demonstrated an improvement in swallowing ability and the maintenance of oral nutrition, albeit with changes in the texture of the food. There have been excellent results in improving the quality of life and maintaining the patient's social and family skills.

Results

After two months of intensive training, the patient fully recovered his swallowing capacity going from severe dysphagia (DOSS1) to no dysphagia (DOSS7), recovering, therefore, to feed exclusively for OS with a free diet.

The score on the G.I.R.B.A.S. changed to: G=2 I=1 R=1 B=2 A=1 S=1. After discharge, the patient underwent a cycle of 18 day hospital sessions in order to complete rehabilitation of hoarseness and to work on maintaining swallowing ability rics acquired.

At the end of the day hospital a new clinical and instrumental evaluation (FEES) was carried out: the G.I.R.B.A.S. scale score it changed to: G=1 I=0 R=0 B=1 A=0 S=0; the FEES has demonstrated the stabilization of swallowing skills.

Conclusions and Considerations

Following the rehabilitation treatment, the patient completely recovered his swallowing and phonatory ability.

The results obtained demonstrate how an intensive speech therapy treatment can lead to a complete restitution of swallowing and phonatory skills, also having a positive effect on the person's quality of life. The improvement can be assessed using the rating scale European quality of life whose score changed from 10 at entry to 80 at the end of the rehabilitation process.

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