

# Esophageal Cancer: Results of the Trimodal Approach in a Medium-Volume Multidisciplinary Unit

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## Introduction

Esophageal cancer is a devastating disease, associated with a poor prognosis. Neoadjuvant Chemo-Radiotherapy (CRT) aims to reduce the bulk of the primary tumor before surgery in order to facilitate higher curative resection rates, achieve better locoregional control and prevent micrometastasis.

We present the results of a trimodal approach performed by a medium-volume multidisciplinary unit.

## Material / Methods

We performed a retrospective review of 37 consecutive patients who received esophagectomy after neoadjuvant CRT between March 2003 and March 2016 at the Unidade de Patologia Esofágo-Gástrica, Centro Hospitalar Lisboa Central, Portugal.

## Treatment Protocol

Chemotherapy

- Cisplatin + 5-FU
- 2 Cycles

Radiotherapy

- 45 - 50.4 Gy

4-6 Weeks

Surgery

- Radical Esophagectomy
- Two-field lymphadenectomy

Table 1. Patient Characteristics

Age, mean	58,95	
Male/Female	32/5	86%/14%
Type of Tumour		
Squamous Cell Carcinoma	26	70,3%
Adenocarcinoma	9	24,3%
Neuro-Endocrine	2	5,4%
Location of Primary Tumour		
Middle Third	12	32,4%
Lower Third	25	67,6%
cTNM Stage		
I	3	8,1%
II	5	13,5%
III	29	78,4%

Table 2. Surgery Results

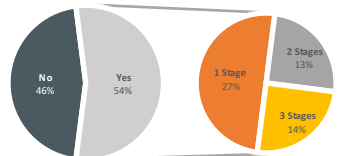
ypTNM Stage		
0	7	18,9%
I	8	21,6%
II	9	24,3%
III	13	35,1%
Resection		
R0	33	89,2%
R1	3	8,1%
R2	1	2,7%

Table 3. Lymph Node (LN) Dissection Results

Total LN Resected	771	
LN Per Patient (Median)	20	
≥ 15 LN	26 patients	
≥ 25 LN	13 patients	
Metastatic LN	41	5,3%
N+ Patients	15	40,5%
Location of Metastatic LN		
Thorax	9	60,0%
Abdomen	3	20,0%
Both	3	20,0%

Table 4. Effects of CRT

TNM Downstaging



Pathological Response (pR)

No Change	8	21,6%
Partial Response	21	56,8%
Complete Response	8	21,6%
Positive pR	29	78,4%

Table 5. Treatment Outcomes

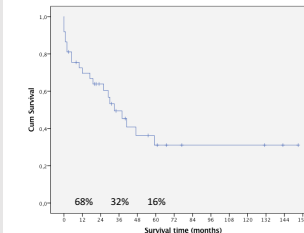
Morbidity	15	40,5%
Intra-operative	1	2,7%
≤ 30 days	10	27,0%
> 30 days	3	8,1%
In-hospital Mortality	11	29,7%
≤ 30 days	4	10,8%
≤ 90 days	7	18,9%

Table 6. Complications

Pneumonia (↑)	7
Pleural effusion/Pneumothorax	4
Late broncho-esophageal fistula	2
Bronchial injury (↔)	1
Late anastomotic stricture	1
Cervical fistula	1
Pleuro-esophageal fistula	1
Acute mesenteric ischemia (↑)	1

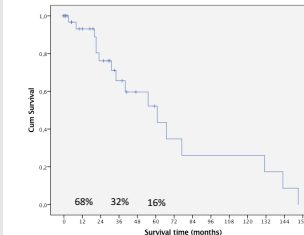
Table 7. Survival Outcomes

Overall Survival



Median Survival Time (months) 33

Disease Free Survival



Median Survival Time (months) 61

## Discussion / Conclusion

Our data reinforces the idea that neoadjuvant CRT contributed to tumor shrinkage, as is documented by the number of positive pR. This would in turn lead to higher R0 rates, TNM downstaging and longer survival.

We achieved surgery results and treatment outcomes similar to higher-volume centers. Since most of the patients have less than 3 years of follow-up, we expect that the overall and disease-free survival outcomes will improve.

The trimodal approach for esophageal cancer therefore offers promising results even in smaller multidisciplinary units.