The impact of receiving adjuvant chemotherapy on survival in patients with locally advanced adenocarcinoma of the oesophagus

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INTRODUCTION

Surgery remains the fundamental modality for achieving disease cure in patients with oesophageal adenocarcinoma In those with locally advanced disease, in the UK, is usually used in conjunction with perioperative chemotherapy as per the Magic trial. Not all patients manage to progress to the adjuvant component of the chemotherapy regimen, and its impact on outcome has not been determined.

The aim of this review was to compare outcomes in those patients that received neoadjuvant treatment only with those that received neoadjuvant and adjuvant chemotherapy .

METHODS

A retrospective review of patients who underwent treatment with curative intent for locally advanced oesophageal adenocarcinoma between 2006 to 2016 at a single institution was performed. Outcomes of patients who were staged T3 and above or had evidence of nodal disease and received perioperative chemotherapy were reviewed.

Outcomes were stratified according to whether patients received only neoadjuvant chemotherapy or both neoadjuvant and adjuvant chemotherapy.

RESULTS

	Adjuvant	Neo-adjuvant alone	P-value
No of patients	137	278	
Age	64 (22-85)	63 (32-80)	p = 0.144
ASA			
1	19	40	p = 0.04
2	86	156	
3	32	80	
4		2	
T stage			p = 0.07
T1	0	4	
T2	6	13	
T3	98	237	
T4	33	24	
N Stage			p = 0.108
N0	16	37	
N1	55	172	
N2	50	55	
N3	16	14	

Table 1: Demographics and the stage of the tumour of patients who underwent curative treatment for locally advanced oesophageal adenocarcinoma

There was no significant in the demographics between the patient cohorts. However, the proportion of patients with a ASA 2 or greater was higher in the neo-adjuvant alone cohort.
There was no difference in the pre-operative stage of the tumour between the two cohorts.

	Adjuvant	Neo-Adjuvant alone	P-value
Hospital Stay (days)	12 (6-39)	16 (8-301)	p = <0.05
Accordion			p = <0.05
1	5% (7)	2.5% (7)	
2	2.3% (41)	12.5% (35)	
3	8.8% (12)	5% (15)	
4	8.8% (12)	4% (11)	
5		1.8% (5)	
6		1.5% (4)	

Table 2: Surgical outcomes of patients who underwent curative treatment for locally advanced oesophageal adenocarcinoma

The higher morbidity in the neo-adjuvant alone cohort contributed to the increased length of stay. Furthermore, the increased morbidity may have precluded patients from receiving adjuvant treatment.

	Adjuvant	Neo-Adjuvant alone	P-value
Lymph nodes resected	33 (11-75)	34 (2-79)	p = 0.38
Resection Margin			p = 0.34
R0	99.2% (136)	98.6% (274)	
R1	0.8% (1)	1.4% (4)	

Table 3: Oncological outcomes of patients who underwent curative treatment for locally advanced oesophageal adenocarcinoma

There was no difference in the oncological outcomes between the two cohorts.

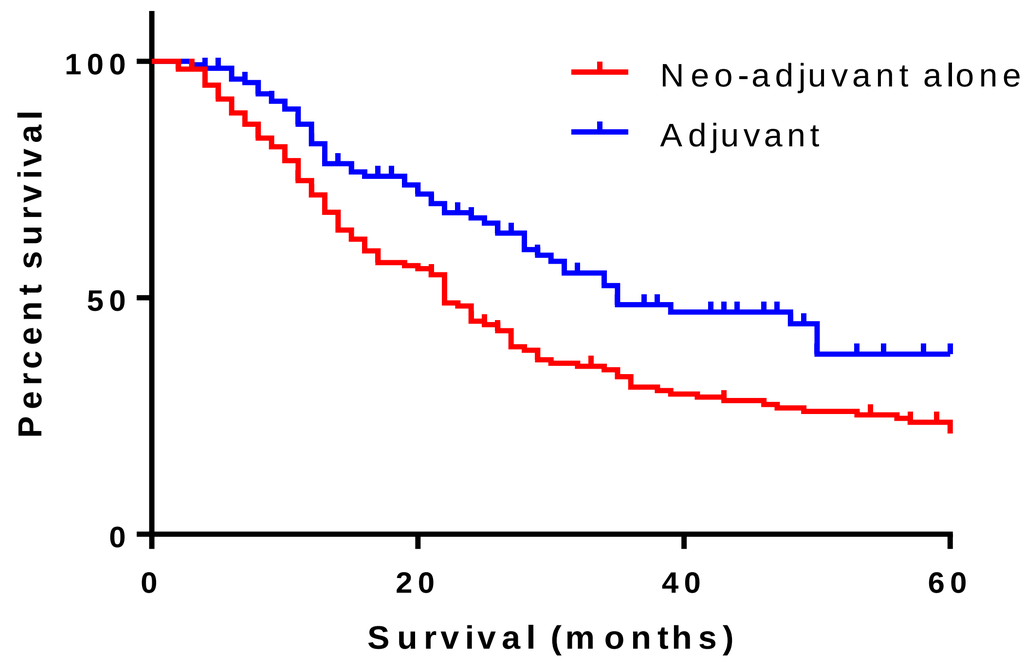

Figure 1: Comparison of overall survival outcomes in patients undergoing curative treatment for locally advanced oesophageal cancer

There was a significant difference in five year survival rates in patients who received adjuvant treatment was 40%, median survival 35 months compared to 24%, median survival 22 months who received neo-adjuvant treatment alone, p-value <0.05

CONCLUSIONS

These results indicate a trend towards improved survival with the addition of adjuvant chemotherapy. This may be of greater impact in those patients with nodal involvement. Further studies are required to fully evaluate the impact of adjuvant chemotherapy in patients surgically treated for oesophageal cancer.