WHAT IS THE PROGNOSTIC VALUE OF LYMPHADENECTOMY IN ADVANCED EPITHELIAL OVARIAN CANCER?

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BACKGROUNDS AND AIMS: Although lymph node metastasis has been considered as a significant prognostic factor of epithelial ovarian cancer (EOC), the role of lymphadenectomy in the management of advanced EOC (FIGO stage IIB to IV) has been the object of controversy during recent years. We investigated the effect of lymphadenectomy on the survival outcomes of patients with advanced epithelial ovarian cancer according to residual disease status.

METHODS: In this study, we retrospectively reviewed the data of 121 patients who underwent surgery for advanced EOC between 2000 and 2010 in the Salah Azaiez Institute of oncology. Survival outcomes were analyzed according to the clinical, therapeutic and histopathological features. Survival curves were generated using the Kaplan-Meier method and the log-rank test.

RESULTS:

- The mean age was 57.47 years (range 28-80 years).
- Primary debulking surgery was performed in 96 patients (79.3%) and 25 patients (15.2%) underwent interval debulking surgery.
- Maximal cytoreduction (R0) was achieved in 37 of patients (30.6%), 39 patients had a residual disease ≤ 1cm (32.2%) and 45 patients had a residual disease >1cm (37.2%).
- Lymph node dissection (LND) was performed in 60 patients (50.4%). Fifty one patients (42.1%) had pelvic and para-aortic lymphadenectomy, 5 patients (4.1%) had isolated pelvic lymphadenectomy (PL) and 4 patients (3.3%) had isolated para-aortic lymphadenectomy (PAL).
- Serous carcinoma was the most frequent subtype (79.3%).
- From all, 3.3% of patients were FIGO stage IIB, 85.9% were FIGO stage III and 10.8% were FIGO stage IV.
- Positive LN was assessed in 33 patients (27.3%): Pelvic and para-aortic nodal metastasis were observed in 13 cases (10.3%), 8 patients (6.6%) had isolated pelvic LN metastasis and 12 (9.9%) patients had isolated PA metastasis.

• Univariate Analysis: Table1:

- The 5 years overall survival OS rate was 26.9%.
- The 5-years recurrence free survival (RFS) rate was 24.5 %
- OS and RFS were significantly associated to the tumor stage, maximal cytoreduction and lymph node status.
- The rate of 5 years OS was found to be significantly higher in patients who underwent LND (43.5% vs 9.4%, p <0.0001) with a better OS rate in case of PL and PAL compared to patients with only PL or PAL (47.5% vs 22.2%, p=0.04).
- The rate of 5 years RFS was found to be significantly higher in patients who underwent LND (37.6 % vs 5.5%, p=0.001) with a better RFS rate in case of PL and PAL compared to patients with only PL or PAL (40.2% vs 16.7%, p=0.002).

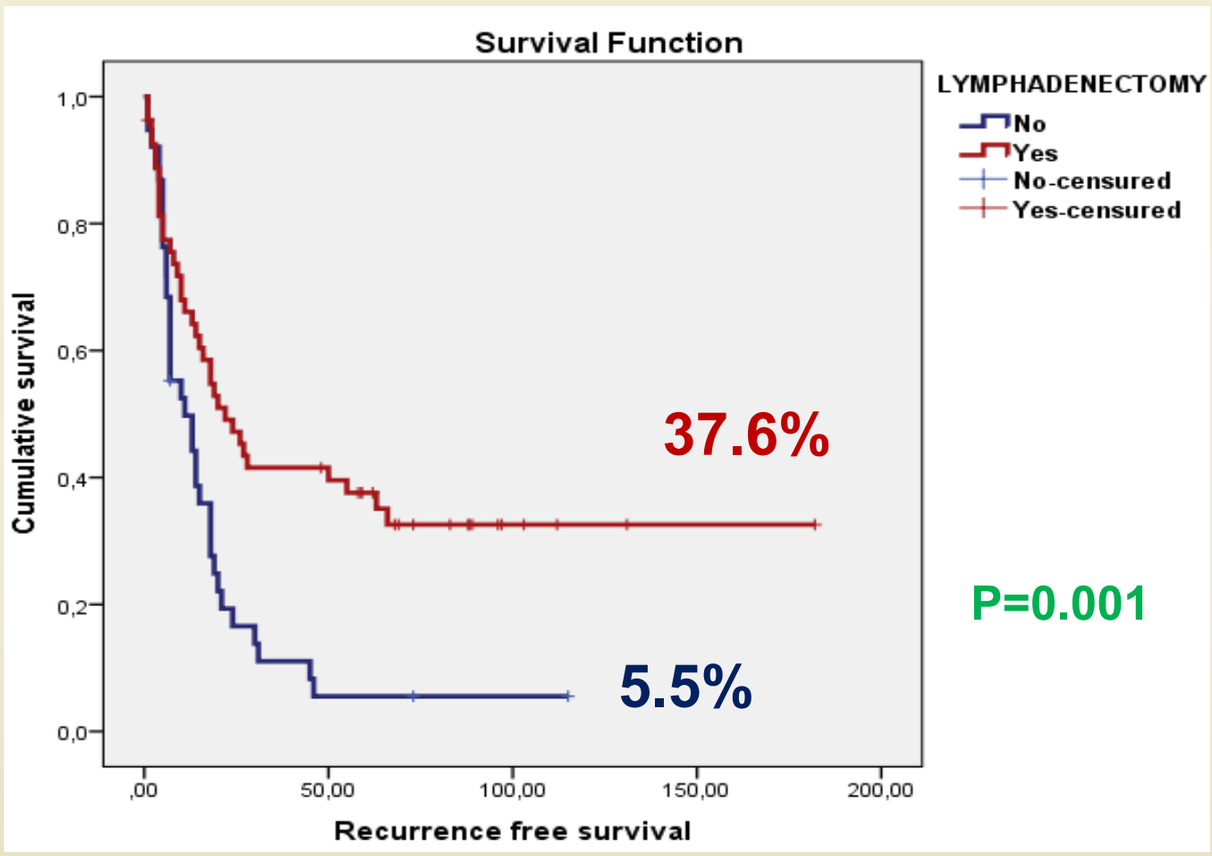
•Sub-group analysis:

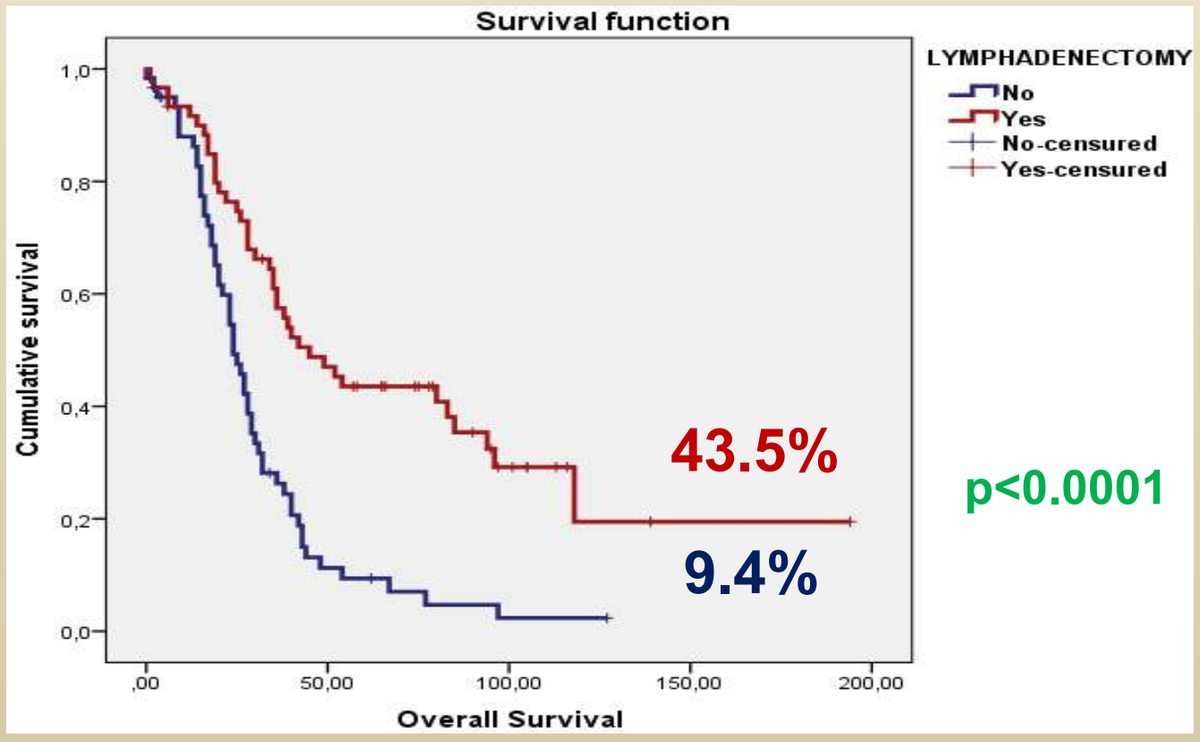
- In patients who had R0 or a residual disease ≤ 1 cm, LND increased significantly the 5 years OS and RFS (43.5% and 35.1% vs 11.5% and 4.5%, p=0.003).
- However, the 5 years RFS of patients with a residual disease of more than 1 cm was not significantly improved by LND (7.1% vs 24.2%, p=0.196) despite the gain in term of OS (7.2% vs 42.7%, p=0.006)

Table1: Univariate analysis of the OS and RFS

Variables		5 years OS		5 years RFS	
		%	p	%	p
Age (years)	≤55	28.9	0.828	24.2	0.436
	>55	25.2		24.8	
Stage	IIB-IIIA	50	**0.03**	54.5	**0.022**
	IIIB-IV	24.2		20.3	
Residue	R0	37.8		36.4	**0.031**
	≤ 1cm	25.5	**0.022**	19.4	
	> 1cm	18.2		14.8	
LND	No	9.4	**<0.0001**	5.5	**0.001**
	Yes	43.5		37.6	
Type of LND	No LND	9.4		5.5	**0.006**
	PL	20	**<0.0001**	33.3	
	PAL	25		0	
	P+PAL	47.5		40.2	
LN status	No LND	9.4		5.5	**0.002**
	N-	31.9	**<0.0001**	48.1	
	N+	57.8		28.6	
Treatment	SURG alone	0		0	**0.049**
	SURG+ ADJ CT	30.6	**<0.0001**	28.6	
	NADJ CT/SURG	19.8		10.6	

LND: lymph node dissection, PL: Pelvic LND, PAL: Para-aortic LND, P+PAL: Pelvic and para-aortic LND; SURG: Surgery, ADJ CT: adjuvant chemotherapy, NADJ CT: neoadjuvant chemotherapy, N-: no lymph node metastasis, N+: Lymph node metastatsis





Multivariate analysis of OS:

Independent prognostic factor of OS were LND (HR=1.696, 95% CI=1.025-2.807, p=0.04) and Treatment sequency (HR=6.170, 95% CI= 2.281-15.466,p<0.0001).

Multivariate analysis of RFS:

LND was the only independent prognostic factor of aRFS (HR=2.162, 95% CI=1.334-3.504, p=0.002)

Conclusion: Lymphadenectomy is significantly associated with a better survival outcome in patients advanced ovarian cancer, but its positive effect diminishes as residual tumor size increases