RETROPERITONEAL LYMPH NODE RECURRENCE OF EPITHELIAL OVARIAN CANCER: PROGNOSTIC FACTORS AND TREATMENT OUTCOME

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Aim: To compare the treatment outcome and survival of patients with recurrence in retroperitoneal lymph nodes versus women with intraperitoneal recurrence.

Methods: This retrospective cohort study included patients treated for ovarian, tubal and primary peritoneal cancer in Wolfson Medical Center during the years 2000-2015. We classified three groups according to the site of recurrence: intraperitoneal only, retroperitoneal lymph nodes only, and both. Response to treatment was assessed by the RECIST criteria. Progression free survival (PFS), post-recurrence survival (PRS) and overall survival (OS) were estimated with the Kaplan-Meier method and compared with Log-rank test. The association between clinical variables and survival was established by Cox proportional hazards model.

Results: Out of 135 patients in our cohort, 66 were diagnosed with intraperitoneal recurrence, 30 with retroperitoneal lymph node recurrence and 39 with combined recurrence. The clinical, pathological and surgical characteristics were similar among all groups, besides CA-125, which was significantly lower in the retroperitoneal recurrence group at diagnosis, end of treatment and recurrence. The median follow up period was 45.8 months. OS and PRS were significantly higher in the retroperitoneal recurrence group vs. the intraperitoneal and combined recurrence groups. (OS – 93.07 vs. 47.9 and 41.7 months, respectively, $p=0.000$, PRS – 68.57 vs. 29.67 and 19.7 months, respectively, $p=0.000$). In multivariate analysis, retroperitoneal recurrence was found to be an independent prognostic factor for survival.

Conclusions: The site of recurrence has significant prognostic value regarding PRS and OS. Patients with retroperitoneal lymph node recurrence only, have a favorable prognosis with estimated survival longer than 5 years.

Variables	Intra-peritoneal recurrence (N=66)	Retro-peritoneal recurrence (N=30)	Combined recurrence (N=39)	Total (N=135)	P-value
Age at diagnosis (median,years)	65.44	64.99	64.75	65.04	NS
Stage					
I	2 (3%)	2 (6.7%)	1 (2.6%)	5 (3.7%)	NS
II	2 (3%)	0 (0%)	2 (5.1%)	4 (3%)	
III	57 (86.4%)	26 (86.6%)	28 (71.8%)	111 (82.2%)	
IV	5 (7.6%)	2 (6.7%)	8 (20.5%)	15 (11.1%)	
Response rate to first chemo					NS
Complete	49 (74.2%)	25 (83.3%)	31 (79.5%)	104 (77.8%)	
Partial	10 (15.2%)	4 (13.3%)	5 (12.8%)	19 (14.1%)	
Progressive	4 (6.1%)	1 (3.3%)	1 (2.6%)	6 (4.4%)	
Stable disease	3 (4.5%)	0	2 (5.1%)	5 (3.7%)	
Platinum					NS
Sensitive	39 (59.1%)	22 (73.3%)	24 (61.5%)	85 (63%)	
Resistant	20 (30.3%)	7 (23.3%)	12 (30.8%)	39 (28.9%)	
Refractory	7 (10.6%)	1 (3.3%)	3 (7.7%)	11 (8.1%)	
Mean CA-125					P=0.002 NS P=0.018 P=0.03
At diagnosis	2003.80	722.41	1706.57	1636.18	
Mid treatment	103.63	122.03	452.58	205.95	
End of treatment	29.59	11.97	87.94	41.78	
At recurrence	236.5	56.5	631.8	306.9	
Type of surgery					NS
Primary	36 (54.5%)	17 (56.7%)	17 (43.6%)	70 (51.9%)	
Interval	26 (39.4%)	13 (43.3%)	20 (51.3%)	59 (43.7%)	
None	4 (6.1%)	0 (0%)	2 (5.1%)	6 (4.4%)	
Debulking					NS
0 cm	37 (46.1%)	18 (60%)	17 (43.6%)	72 (53.3%)	
0-1 cm	15 (22.7%)	23.3 (77%)	15 (38.5%)	27.4 (70%)	
>1 cm	10 (15.1%)	5 (16.7%)	5 (12.8%)	20 (14.8%)	
Not operated	4 (6.1%)	0 (0%)	2 (5.1%)	6 (4.4%)	
Pelvic lymph nodes dissection					NS
Yes	24 (36.4%)	17 (56.7%)	22 (56.4%)	63 (46.7%)	
No	38 (57.6%)	13 (43.3%)	15 (38.5%)	66 (48.9%)	
Not operated	3 (4.5%)	0 (0%)	2 (5.1%)	5 (3.7%)	
Para-Aortic lymph nodes dissection					NS
Yes	14 (21.2%)	12 (40%)	9 (23.1%)	35 (25.9%)	
No	48 (72.7%)	18 (60%)	28 (71.8%)	94 (69.6%)	
Not operated	4 (6.1%)	0 (0%)	2 (5.1%)	6 (4.4%)