PREVALENCE AND OUTCOME OF CLEAR CELL CARCINOMA AND ENDOMETRIOID CARCINOMA OF OVARY COEXISTING WITH ENDOMETRIOSIS

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There were studies proposed the association of endometriosis and ovarian cancer (1). In addition, the pathophysiology and clinical manifestation of endometriosis-associated ovarian cancer (EAOC) were widely reviewed (2). The risk of ovarian cancer from endometriosis ranged from 1.3 to 1.9 depending on histologic sub-type (1). Clear cell and endometrioid histology of ovarian cancer were reported to be closely associated with endometriosis with relative risk of 2.53 and 3.37 respectively (3-5).

The objective of the current article aimed to review the prevalence and outcome of endometriosis-associated ovarian cancer histologic-type clear cell carcinoma and endometrioid adenocarcinoma.

From 1 January 2005 to 31 December 2015, a total of 333 patients who had histologic subtype of clear cell carcinoma and endometrioid carcinoma were identified. 45 (13.51%) had pathologically confirmed coexisting endometriosis, and 285 (85.58%) had no endometriosis.

Demographic data	Endometriosis-associated n=45	Non endometriosis-associated n=285	P value
Age	50.84	54.17	0.031
Symptoms			0.376
- Abdominal mass	2	6	
- Abdominal pain	29	209	
- Abnormal uterine bleeding	14	70	
Stage			0.028
- I	36 (80)	168 (58.9)	
- II	6 (13.3)	45 (15.8)	
- III	3 (6.7)	58 (20.4)	
- IV	0 (0)	14 (4.2)	
Surgery			0.002
- Optimal surgery	35 (77.8)	156 (54.7)	
- Suboptimal surgery	10 (22.2)	76 (26.7)	
- Incomplete staging	0 (0)	53 (18.6)	
Adjuvant chemotherapy			0.720
- Yes	41 (91.1)	264 (92.6)	
- No	4 (8.9)	21 (7.4)	
Intra-operative complications			0.054
- Yes	0 (0)	22 (7.7)	
- No	45 (100)	263 (92.3)	
Post-operative complications			0.002
- No	35 (77.8)	156 (54.7)	
- Wound dehiscence	10 (22.2)	76 (26.7)	
- Septicemia	0 (0)	53 (18.6)	

Comparing clear cell carcinoma and endometrioid carcinoma	Clear cell carcinoma n=31	Endometrioid carcinoma n=14	P value
Age	50.77	51	0.937
Symptoms			0.002
- Abdominal mass	25	4	
- Abdominal pain	0	2	
- Abnormal uterine bleeding	6	8	
Stage			0.714
- I	24 (77.4)	12 (85.7)	
- II	5 (16.1)	1 (7.1)	
- III	2 (6.5)	1 (7.1)	
- IV	0 (0)	0 (0)	
Surgery			0.491
- Optimal surgery	25 (80.6)	10 (71.4)	
- Suboptimal surgery	6 (19.4)	4 (28.6)	
- Incomplete staging	0 (0)	0 (0)	
Adjuvant chemotherapy			0.782
- Yes	28 (90.3)	13 (92.9)	
- No	3 (9.7)	1 (7.1)	

There was significant higher probability of optimal surgery in EAOC compared to non-EAOC (77.8% and 54.7% respectively) as well as post-operative complication which was revealed lower incidence of EAOC (22.2%, p=0.02).

Intraoperative complication

Type of complications	No.	%
Blood loss, anemia	11	50
Bladder and ureteric injury	6	27.3
Bowel injury	5	22.7

Median follow-up time in this study was 27.95 months (range from 0 to 134 months), 38 of 45 (84%) patients with EAOC demonstrated normal clinical symptoms at the time of last follow-up, while 1 (2%) had progression of disease, 5 (11%) had loss to follow-up, and 1 (2%) had acute renal failure. In non-EAOC, 201 of 284 (70%) patients had normal clinical symptoms at last follow-up date, followed by 42 (14%) patients had disease progression, 11 (3.8%) patients had stable disease, and 23 (8%) had loss to follow-up. There was significant probability of treatment outcome in EAOC (p= 0.023).

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4. Japan. Int J Gynecol Cancer. 2007;17: 37-43.
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