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CLINICAL AND SURVIVAL DATA OF EARLY-STAGE TUBO-OVARIAN CARCINOMA ACCORDING TO BRCA MUTATIONAL STATUS. A LARGE, MULTICENTER, RETROSPECTIVE STUDY

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Introduction/Background The impact of BReast CAncer genes (BRCA) status on early-stage ovarian cancer (eOC) survival has rarely been investigated. Therefore, the possible efficacy of Poly (ADP-ribose) polymerase inhibitors (PARPi) in this population is unexplored. Since the risk of recurrence in eOC is low but not absent, understanding the role of BRCA mutations in eOC could allow a more tailored approach.

Methodology Data of patients with a diagnosis of epithelial eOC (International Federation of Gynecology and Obstetrics FIGO stage I-II) between 2011–2019 with known BRCA status were collected from 5 centers in Europe. Results by the BRCA status were compared.

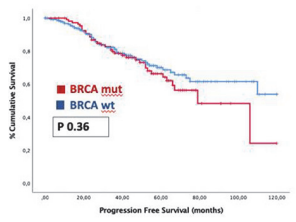

Figure 1a Median PFS: 79 months *vs* NR

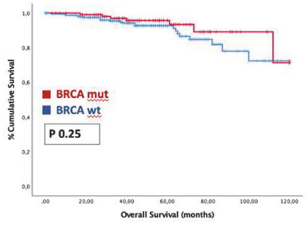

Figure 1b Median OS: NR *vs* NR

Abstract 2022-RA-1367-ESGO Figure 1 Progression-free survival and overall survival in patients with early-stage OC according to BRCA status

Results 369 patients were included, 110 (29.8%) with BRCA mutation (BRCAm) and 259 (70.2%) BRCA wild-type (BRCAwt). The two groups were homogeneous regarding age at disease presentation (table 1). As expected, high-grade serous histotype was significantly more frequent in BRCAm women (p<0.001). BRCAm patients presented as a stage II in 46.4% of the cases, compared with 35.3% in BRCAwt group (p < 0.03). The majority of patients in the BRCAm group received a carboplatin-paclitaxel based treatment (81.5%) compared with 59.4% in the BRCAwt group. After a median follow-up of 45 months, recurrences were significantly more frequent in BRCAm population (32.7%) compared with BRCAwt (23.6%) (p < 0.04). There was no difference between the two groups in terms of median Progression-Free Survival (PFS) (BRCAm 79 months vs BRCAwt Not Reached, p < 0.36, figure 1a) and overall survival (OS) (median OS Not Reached for both groups; p < 0.25, figure 1b).

Abstract 2022-RA-1367-ESGO Table 1 Clinical characteristics of patients, according to BRCA mutational status

		BRCAwt PatientsNo (%) 259 (100)	BRCAm PatientsNo (%) 110 (100)	All Patients No (%) 369 (100)	P value BRCAwt vs BRCAm
Mutation details	**BRCAwt**	259 (100)		259 (70.2)	NA
	BRCA1		81 (73.6)	81 (22)	
	BRCA2		28 (25.5)	28 (7.6)	
	BRCA1 and BRCA2		1 (0.9)	1 (0.3)	
HISTOTYPE data available in 368 patients (258 BRCAwt, 110 BRCAm)	**HGSOC**	102(40)	89(80.9)	191 (52.3)	<0.001
	LGSOC	7 (2.7)	2 (1.8)	9 (2.4)	
	ENDOMETRIOID	71 (27.8)	10 (9.1)	81 (22.2)	
	CLEAR CELL	49 (19.2)	4 (3.6)	53 (14.5)	
	SQUAMOUS	0 (0)	1 (0.9)	1 (0.3)	
	MUCINOUS	22 (8.6)	0 (0)	22 (6)	
	OTHERS	7 (2.7)	4 (3.6)	11 (3)	
FIGO STAGE	**Stage I**	167 (64.5)	59 (53.6)	226 (61.2)	0.03
	Stage II	92 (35.5)	51 (46.4)	143 (38.8)	
TYPE OF SURGERY data available in 366 patients (257 BRCAwt, 109 BRCAm)	**Intensive Surgical Staging**	245 (95.3)	107 (98.2)	352 (96.2)	0.16
	Fertility sparing	12 (4.7)	2 (1.8)	14 (3.8)	
CHEMOTHERAPY data available in 359 patients (251 BRCAwt, 108 BRCAm)	**NO**	38 (15.1)	3 (2.8)	41 (11.4)	0.001
	CARBOPLATIN + PACLITAXEL	149 (59.4)	88 (81.5)	237 (66)	
	CARBOPLATIN ALONE	58 (23.1)	14 (13)	72 (20.1)	
	OTHER	6 (2.4)	3 (2.8)	9 (2.5)	

Conclusion No statistically significant differences in survival according to BRCA status were observed in eOC. The higher relapse rate in BRCAm patients does not affect OS, and can be explained with the use of PARPi or secondary surgery at recurrence. A specific analysis for HGSOC eOC population has already been planned.