and they were unchanged. We took a biopsy of the other ovarium. Histopathological findings confirmed that it was a malignant teratoma. One month after the operation, the patient developed abdominal pain and an ultrasound showed a cyst on the other ovary. We performed a second laparotomy and the whole abdomen was with meta changes. We did hysterectomy, omentectomy, and oophorectomy. She received six cycles of chemotherapy but unfortunately, the patient died after 7 months of primary treatment.

Conclusion Although malignant teratoma is very rare caution should always be exercised in treating these tumors and the dilemma remains as to which is the best option in primary treatment as it is most often young women who want to preserve their fertility. Can elevated alpha-fetoprotein levels help us predict the potential malignant transformation of ovarian cystic teratomas?

2022-RA-1014-ESGO INCIDENCE OF PELVIC HIGH-GRADE SEROUS CARCINOMA AFTER ISOLATED STIC DIAGNOSIS: A SYSTEMATIC REVIEW OF THE LITERATURE

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Introduction/Background Serous tubal intraepithelial carcinoma (STIC) is a precursor lesion of pelvic high-grade serous carcinoma (HGSC). Information on treatment and outcome of isolated STIC is rare. Therefore, we reviewed systematically the published literature to determine the incidence of subsequent HGSC in the high- and low-risk population and to summarize the current diagnostic and therapeutic options.

Methodology A systematic review of the literature was conducted in MEDLINE-Ovid, Cochrane Library and Web of Science of articles published from February 2006 to July 2021. Patients with an isolated STIC diagnosis with clinical follow-up were included. Study exclusion criteria for review were the presence of synchronous gynaecological cancer and/or concurrent non-gynaecological malignancies.

Results 3031 abstracts were screened. 112 isolated STIC patients out of 21 publications were included in our analysis with a pooled median follow-up of 36 (interquartile range (IQR): 25.3–84) months. 71.4% of the patients had peritoneal washings (negative: 62.5%, positive: 8%, atypic cells: 0.9%). Surgical staging was performed in 28.6% of all STICs and did not show any malignancies. 14 out of 112 (12.5%) patients received adjuvant chemotherapy with Carboplatin and Paclitaxel. Eight (7.1%) patients developed a recurrence 42.5 (IQR: 33–72) months after isolated STIC diagnosis. Cumulative incidence of HGSC after five (ten) years was 10.5% (21.6%). Recurrence occurred only in *BRCA1* carriers (seven out of eight patients, one patient with unknown *BRCA* status).

Conclusion The rate of HGSC after an isolated STIC diagnosis was 7.1% with a cumulative incidence of 10.5% (21.6%) after five (ten) years. HGSC was only observed in *BRCA1* carriers. The role of adjuvant therapy and routine surveillance remains unclear, however, intense surveillance up to ten years is necessary.

2022-RA-1022-ESGO IMPLEMENTATION OF MACHINE LEARNING IN A CARE PATHWAY FOR ADVANCED EPITHELIAL OVARIAN CANCER: A NATIONAL CANCER INSTITUTE EXPERIENCE

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Introduction/Background Nowadays, the knowledge of quality indicators may enable physicians to adapt the patients' care to current standards and recommendations. Thus, the implementation of machine learning in a care pathway can be observed as an asset. The objective of this work was to describe the development of a care pathway for advanced epithelial ovarian cancer (AEOC) using artificial intelligence, in a National Comprehensive Cancer Institute.

Methodology A multidisciplinary team defined the key steps of the AEOC pathway. Valuable indicators were defined based upon national and international guidelines. The software was educated to extract items of interest from the patient's electronic medical record. Automatic alerts are controlled by the medical referents. Data are automatically updated daily.

Results Gradually, 17 AEOC keys steps and 21 indicators were selected. From January 2018 to April 2022, 403 patients were identified in the Turquoise pathway. The median delays were: from first call to first medical appointment, 6 days; from first appointment to laparoscopic diagnostic procedure, 12 days; from first appointment to start of primary chemotherapy if indicated: 33 days. Our center is a European Society of Gynaecological Oncology (ESGO) accredited center for ovarian cancer: the ESGO indicators for AEOC were easily available, and confirmed the intermediate center status with 72 to 117 cytoreductive surgeries per year. Adverse events were prospectively recorded, with a 8% rate of surgical complications after cytoreductive surgery. Twelve to 18% of patients were included in clinical trials. The SARS-CoV-2 pandemic impact was clearly identified with an increased number of neoadjuvant chemotherapy.

Conclusion The use of artificial intelligence has enabled the construction of a critical care pathway with real time feedback that's helps to target the best quality of medical and surgical care. In the future, appointments will be streamlined to enhance the patients' treatment course.

2022-RA-1028-ESGO ROLE OF RADIOTHERAPY IN PLATINUM SENSITIVE OLIGOMETASTATIC RECURRENT OVARIAN CANCER: A VALID ALTERNATIVE TO DELAY SYSTEMIC TREATMENT

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Introduction/Background Ovarian cancer (OC) represents the most lethal gynaecological malignancy, with approximately 80% of advanced OC patients experiencing a recurrence after primary treatment. The role of radiotherapy in recurrent OC has been recently explored. The aim of this study was to assess the efficacy of advanced radiotherapy at the time of the 1st platinum-sensitive oligometastatic recurrence.

Methodology Patients with epithelial OC undergoing primary treatment at the European Institute of Oncology, Milan, from January 2010 to April 2019 were retrospectively identified. Among those, patients treated with stereotactic or intensity-modulated radiotherapy (IMRT) alone at the time of 1st platinum-sensitive oligometastatic recurrence were included. Patients with encephalic or vertebral recurrence were excluded. Response rate (based on RECIST 1.1 criteria), predictor of treatment response, and survival outcome were evaluated with appropriate statistical analysis.

Abstract 2022-RA-1028-ESGO Table 1

Table.

	Total N=31	Complete or partial response N=25 (80.6%)	Progression disease N=6 (19.4%)	p-value
Age, median, years, median (range)	56 (34-75)	56 (34-75)	51.5 (42-67)	0.32
ECOG score				1.0
0	24 (77.4%)	20 (80%)	5 (83.3%)	
1	7 (22.6%)	5 (20%)	1 (16.7%)	
Histology, n (%)				1.0
High grade serous	28 (90.3%)	22 (88%)	6 (100%)	
High grade endometrioid	3 (9.7%)	3 (12%)	/	
FIGO stage at diagnosis, n (%)				0.56
I	1 (3.2%)	1 (4%)	/	
II	4 (12.9%)	3 (12%)	1 (16.7%)	
III	21 (67.7%)	17 (68%)	4 (66.6%)	
IV	5 (16.2%)	4 (16%)	1 (16.7%)	
BRCA status, n (%)				1.0
BRCA wild-type	12 (38.7%)	10 (40%)	2 (33.3%)	
BRCA 1/2 mutated	10 (32.3%)	9 (36%)	1 (16.7%)	
BRCA test not performed	9 (29%)	6 (24%)	3 (50%)	
Vital status, n (%)				0.44
Alive with disease	13 (41.9%)	10 (40%)	3 (50%)	
Died of other causes	1 (3.2%)	1 (4%)	/	
Died of disease	5 (16.2%)	3 (12%)	2 (33.3%)	
Alive with no evidence of disease	12(38.7%)	11 (44%)	1 (16.6%)	
Type of primary treatment, n (%)				0.29
Primary debulking surgery	23 (74.2%)	17 (68%)	6 (100%)	
Interval debulking surgery	8 (25.8%)	8 (32%)	/	
Residual tumour after 1st surgery, n (%)				0.31
No	25 (80.6%)	19 (76%)	6 (100%)	
Yes	6 (19.4%)	6 (24%)	/	
>1 cm	2 (6.4%)	2 (8%)	/	
1-5 mm	4 (12.9%)	4 (16%)	/	
Platinum-based CT, n (%)				
Yes	31 (100%)	/	/	
No	0 (0%)	/	/	
Maintenance with Bevacizumab, n (%)				
Yes	10 (32.3%)	7 (28%)	3 (50%)	0.36
No	21 (67.7%)	18 (72%)	3 (50%)	
Maintenance with PARP inhibitors, n (%)				
Yes	0 (0%)	/	/	
No	31 (100%)	/	/	
Platinum-free interval before RT, months, median (range)	21 (6-37)	23 (8-37)	11 (6-28)	0.06
CA125 at 1st recurrence, (KU/L), median (range)	26 (5.9-500)	23 (5.9-500)	35 (5.9-55.2)	0.5
ECOG score at recurrence, n (%)				1.0
0	30 (97.8%)	24 (96%)	6 (100%)	
1	1 (3.2%)	1 (4%)	/	
AGO score, n (%)				0.29
Negative	7 (22.6%)	7 (28%)	/	
Positive	24 (77.4%)	18 (72%)	6 (100%)	
Site of recurrence, n (%)				1.0
Abdominal lymph nodes	22	18	4	
Abdominal peritoneum	5	5	/	
Extra-abdominal lymph nodes	10	7	3	
Type of RT, n (%)				1.0
Stereotactic body radiation therapy (SBRT)	29 (93.5%)	23 (92%)	6 (100%)	
Intensity-modulated radiation therapy (IMRT)	2 (6.5%)	2 (8%)	/	
N. of lesions treated with RT, n (%)				0.67
1	15 (55.6)	12 (52.2)	3 (75)	
2	11 (40.7)	10 (43.5)	1 (25)	
3	1 (3.7)	1 (4.3)	0 (0)	
Missing	4	2	2	
Interval between RT and recurrence requiring CT, months, median (range)	16 (4-126)	18 (4-126)	4.5 (4-8)	0.0007
Interval between RT and recurrence requiring CT (binary), n (%)				
≥ 6 months	24 (77.4)	/	/	
<6 months	7 (22.6)	/	/	
Interval between RT and recurrence requiring CT (binary), n (%)				
≥ 12 months	18 (58.1)	/	/	
<12 months	13 (41.9)	/	/	

Abbreviations: ECOG, Eastern Cooperative Oncology Group; FIGO, International Federation of Gynecology and Obstetrics; n, number; CT, chemotherapy; PARP, Poly ADP Ribose Polymerase; RT, radiotherapy.
AGO score, Arbeitsgemeinschaft Gynäkologische Onkologie. A positive AGO score assumes surgical resectability with the presence of 3 factors: good performance status (ECOG 0), complete resection at 1st surgery and ascites ≤500 mL.

Results In total, 31 patients meeting inclusion criteria were included. Of them, 18(58,1%) had a complete response, 7 (22,6%) a partial response, and 6 (19.3%) a progressive disease [1(3.2%) both in-field and out-of-field, 5(16.1%) out-of-field]. Among them, 30(96.8%) had a subsequent relapse, of which 22(73.3%) were treated with chemotherapy while the remaining 8(26.7%) underwent further radiotherapy or thermoablation. The median interval between radiotherapy and the subsequent recurrence requiring chemotherapy was 16 months (range 4–126), with 18(58.1%) patients having a subsequent recurrence requiring chemotherapy after 12 months or more. Upon univariate analysis, median platinum-free interval before radiotherapy in patients with complete/partial response was longer than in patients with progressive disease (23 vs. 11 months, p=0.06), although the association did not meet the conventional level of statistical significance.

Conclusion In our experience, radiotherapy alone represents a valuable option in the treatment of 1st oligometastatic platinum-sensitive recurrent epithelial OC, providing a good response rate and allowing to extend the platinum-free interval. Further studies are required to confirm our results and identify predictors of treatment response.

2022-RA-1029-ESGO COMPARISON OF O-RADS AND IOTA ADNEX MODEL CRITERIA WITH PATHOLOGY RESULTS IN ADNEXIAL MASSES

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Introduction/Background International Ovarian Tumor Analysis-Adnex Model (IOTA Adnex Model) and Ovarian-Adnexal Reporting and Data System (O-RADS) have been developed for the diagnostic accuracy of adnexal masses in the preoperative period. This study aimed to evaluate O-RADS and IOTA Adnex Model scores of patients who had surgery for an adnexal mass and and interpret the roles of scores in management.

Methodology The study consists patients who had surgery for an adnexal mass in Ankara City Hospital Gynecology and Obstetrics Hospital between 2019–2021 and met the inclusion criterias. Demographic characteristics, ages, parities, menopause statuses, ultrasonographic morphologies of the patients were recorded. IOTA Adnex Model and O-RADS scores calculated based on these data.

Results This study consisted of 413 patients whom 295 benign and 118 malign patients. Mean of CA 125 of the benign patients were 15,2 (2- 3096) unit/ml and mean of CA 125 of the malign patients were 72,5 (5 – 9820) unit/ml. According to the ROC analysis for CA 125 in postmenopausel patients; AUC:0,847 (%95 CI, 0,79–0,9), cut-off: 34,8 unit/ml, sensitivity:%70,8 and specificity:%83,8. In the premenopausal group; AUC: 0,727 (%95 CI, 0,65–0,80), cut-off:180,5 unit/ml, sensitivity:%32,1 and specificity:%92,7 (p<0,001). Sensitivity and specificity of the IOTA Adnex Model and O-RADS were found%78,8-%48,3 and%97,9–93,5 respectively for the distinction of the malignancy (p<0,001). There is moderate agreement between IOTA Adnex Model and O-RADS(κ = 0,53).

Conclusion IOTA Adnex Model shows similar specificity but better sensitivity than O-RADS for the distinction of the malignancy. In case of increasing sensitivity without decreasing specificity and clarifing the ultrasonographic features for the physicians who will apply the model, IOTA Adnex Model can be used widely as a ultrasonography-based risk stratification model in adnexal masses.