2022-RA-758-ESGO PRETREATMENT ^{18}F-FDG PET/CT METABOLIC PARAMETERS AS PREDICTORS OF NON-COMPLETE CYTOREDUCTION IN PATIENTS WITH EPITHELIAL OVARIAN CANCER

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Introduction/Background The objective of this study was to analyse the utility of pretreatment ^{18}F-FDG-PET/CT metabolic parameters to predict non-complete cytoreduction in patients with epithelial ovarian cancer.

Abstract 2022-RA-758-ESGO Table 1 Sample characteristics and relation to non-complete cytoreduction

Table 1 – Sample characteristics and relation to non-complete cytoreduction.

VARIABLE	N (%)	X^2 (Fisher)
FIGO		
≤ IIIB	21 (42)	0.092
IIIC / IV	29 (58)	
Histological type		
HGSOC (high grade serous ovarian cancer)	36 (72)	
Mucinous carcinoma	4 (8)	
Clear cell carcinoma	4 (8)	ns
Mesonephric adenocarcinoma	2 (4)	
Endometrioid carcinoma	4 (8)	
Type of debulking surgery		
Complete (R0)	39 (78)	ns
Non-complete (R1)	11 (22)	
Ascites		
Pathological ^{18}F-FDG uptake	10 (20)	**0.004**
Non-pathological ^{18}F-FDG uptake	40 (80)	
VARIABLE	Median (IQR)	Logistic regression
Age (years)	58 (47-62)	ns
Total metabolic active disease		
MTV	104.7 (14.1 – 313.4)	**0.007**
TLG	362.6 (65.9 – 1,281.4)	0.123
Infradiaphragmatic disease		
MTV	53.7 (14.1 – 281.6)	**0.010**
TLG	226.5 (63.1 – 1,125.7)	0.189
Total peritoneum		
MTV	107.4 (19.3 – 300.9)	**0.027**
TLG	307.8 (62.9 – 1,114.5)	0.055
Upper abdomen peritoneum		
MTV	28.3 (12.9 – 63.2)	0.420
TLG	82.9 (40.5 – 173.6)	0.412
Lower abdomen peritoneum		
MTV	63.9 (9.8 – 177.1)	0.104
TLG	189.5 (44.4 – 480.4)	0.134
Total pelvic disease (primary tumor and peritoneum)		
MTV	43.4 (9.8 – 213.0)	0.203
TLG	182.8 (42.1 – 859.9)	0.727
Infradiaphragmatic lymph nodes		
MTV	5.9 (3.8 -8.4)	0.248
TLG	16.2 (10.2-25.9)	0.316

Methodology Transversal study on 50 patients with epithelial ovarian cancer at Clínica Universidad de Navarra who underwent pretreatment 18F-FDG-PET/CT and subsequent debulking surgery (R0 = complete, R1 = non-complete). The supra- and infradiaphragmatic metabolic active disease (primary tumor, peritoneal carcinomatosis and lymph nodes) visualized in the 18F-FDG-PET/CT was segmented using Syngo.via (automatic thresholding at 40% SUVmax and manual corrections). The extent and distribution of the peritoneal carcinomatosis was evaluated globally and throughout abdominopelvic regions. The presence of pathological 18F-FDG uptake of the ascites was also evaluated. Metabolic parameters studied were metabolic active tumor volume (MTV) and total lesion glycolysis (TLG, defined as MTVxSUVmean), calculated for each segmented region and for the whole disease. Other variables studied were age, FIGO and histological tumor type. The dependent variable was non-complete cytoreduction. Data were described by median (IQR) and frequency (%). Chi-squared and median test were used to compare groups and ROC analysis to dichotomize continuous variables. Predictors of non-complete cytoreduction were analysed by multiple logistic regression.

Results Patient´s characteristics are listed in table 1. Eleven patients (22%) showed non-complete cytoreduction, mostly associated to pathological uptake in ascites (60 vs 12,5%; OR= 10.5 95%CI: 2.2–50.7; p= 0.004), total MTV >192 (45.0 vs 6.7%; OR=11.5; 95%CI: 2.1–61.7; p=0.007; AUC=0.818) and MTV value of the whole infradiaphragmatic disease >209 (56.3 vs 5.9%; OR= 20.6; 95%CI: 3.6–116.8; p=0.010; AUC=0.818). Only the MTV of the whole infradiaphragmatic disease retains signification in the adjusted model.

Conclusion Despite the small sample size, this initial study highlights the possible role of some 18F-FDG-PET/CT metabolic parameters as predictors of non-complete cytoreduction in patients with epithelial ovarian cancer. Further validation in larger series is needed.

2022-RA-761-ESGO ADVANCED OVARIAN CANCER IMITATING DEEP INFILTRATING ENDOMETRIOSIS. RADICAL RESECTION AND RECONSTRUCTIVE SURGERY OF THE ANTERIOR ABDOMINAL WALL

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Introduction/Background Endometriosis is a disease affecting approximately 10–15% of the female population of reproductive age. Malignant transformation affects 0.7–1% of cases. In women diagnosed with ovarian cancer, endometriosis is present in up to 30% of patients.

Methodology The case of a 36-year-old patient initially diagnosed with pelvic and abdominal wall endometriosis with final diagnosis of advanced low-grade serous ovarian cancer in stage FIGO IVB. The diagnostic methods used and the extent of surgery with reconstruction of the anterior abdominal wall were described.

Results Patient with history of laparoscopic excision of benign ovarian cyst and caesarean section was presented to the gynecologist because of abdominal pain that worsened during menstruation. MRI (figure 1A) and core needle biopsy of the abdominal lesion and colonoscopy were performed. Histopathological report revealed low-grade serous carcinoma originating from the ovary. Complete surgical debulking was performed. Modified Ramirez surgical technique was used to approximate the borders of the fascia (figure 1B,C) and hernia mesh was applied (figure 1D).