IQR) of -160 (-297; 35.2) in the total cohort, -272 (-376; -122) in arm A, 105 (-109; 221) in arm B and -160 (-663; -109) in arm C, p=0.008. High chitinase response was associated with high CA-125 ELIMination rate constant K (KELIM), a marker of chemosensitivity (Fisher exact test, p=0.042).

Conclusion Chitinase activity should not be considered, in the context of ovarian cancer as an aging biomarker, but chitinase response appears as a promising marker of chemosensitivity.

2022-RA-1092-ESGO IDENTIFICATION AND VALIDATION OF MICRORNAS AS ENDOGENOUS CONTROLS IN EPITHELIAL OVARIAN CANCER

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Introduction/Background MicroRNAs (miRNAs) are small non-coding RNA molecules regulating gene expression that may have diagnostic potential by being associated with different diseases, including epithelial ovarian carcinomas (EOC). However, there is a lack of consensus how to accurately quantify miRNA levels, which hinders their implementation in diagnostics. Real-time qRT-PCR is often considered as the golden method; however, the results might be biased by various handling of missing data and normalization approaches. Only a few studies have been published to date on the identification of endogenous miRNA controls in EOC. Therefore, our aim was to identify stable candidates based on own, previously published- and three public miRNA-microarray datasets and verify their stability in a new cohort of EOC patients. Moreover, our goal was to compare different missing data and normalization approaches to investigate their impact on the results.

Methodology Following RNA extraction from formalin-fixed paraffin embedded tissues from 80 high-grade EOC patients, a custom designed panel of 48 miRNAs was investigated by RT-qPCR and analyzed by applying various strategies regarding missing data (a listwise/pairwise deletion, mean substitution, replacing non-detects with a Cp value of 40, multiple imputation), choosing stable endogenous controls (GeNorm, BestKeeper, NormFinder, the comparative ΔCt method and RefFinder) and normalization based on endogenous controls, spike-ins or global mean.

Results We identified 20 endogenous control candidates by combining miRNA microarray data analyses of four datasets and literature screening. Among these candidates, hsa-miR-101–3p, hsa-miR-191–5p, and hsa-miR-193a-5p were subsequently validated as most stable in 80 EOC patients. Moreover, we present how different approaches of data handling affect results, e.g. common practice of setting missing Cp values to 40 might lead to large (likely false) differences in miRNA expression between patients.

Conclusion Our data demonstrated the challenge of miRNA qRT-PCR data analysis and the need for standardization if comparison/conclusions across datasets are performed.

2022-RA-1094-ESGO IMPLEMENTATION OF A TRI-MODAL PREHABILITATION INTERVENTION – KORE-INNOVATION: THE FIRST PROSPECTIVE CLINICAL TRIAL TO ASSESS A PERIOPERATIVE PATHWAY TO REDUCE POSTOPERATIVE COMPLICATIONS IN OVARIAN CANCER PATIENTS

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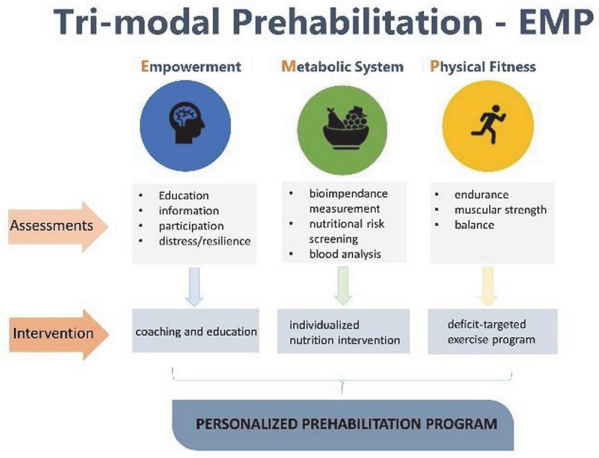
Introduction/Background The effectiveness of prehabilitation in improving physical capacity for patients undergoing surgery has been shown for patients in orthopedic, abdominal, or cardiological surgeries. Ovarian cancer patients have an exceptionally high risk for severe postoperative complications due to the extent of the surgical treatment, often including multivisceral resection. We report our first experiences of implementing a tri-modal prehabilitation intervention as part of the KORE-INNOVATION trial.



Abstract 2022-RA-1094-ESGO Figure 1

Methodology KORE-INNOVATION is an ongoing clinical trial to implement and assess an innovative perioperative care pathway to reduce complications (primary endpoint) for patients undergoing surgery for ovarian cancer through the implementation of a prehabilitation strategy combined with the 'enhanced recovery after surgery' (ERAS)-pathway. The prehabilitation intervention consists of three modules: a personalized empowerment intervention, a personalized physical exercise-program-, and a personalized metabolic screening and

nutrition intervention. Before prehabilitation, a complex baseline assessment, consisting of the Fried frailty assessment, metabolic and physical assessments, and detailed patient history, is performed to develop a personalized prehabilitation plan targeting individual deficits (figure 1).

Results Prehabilitation ranged from one to three weeks and was overseen by a multi professional and interdisciplinary KORE team of physicians, nurses, physiotherapists, and nutritionists. The majority of patients conducted prehabilitation as outpatients. Weekly phone calls were made to monitor patients' adherence and adjust treatment plans, if necessary. Patients reported feeling more capacitated and resilient after undergoing the prehabilitation program.

Conclusion A structured, individualized prehabilitation program delivered through a specialized multi professional team presents an opportunity to prepare patients holistically for the stressful experience of debulking surgery and might contribute to faster postoperative reconditioning. Prehabilitation is an important addition to the ERAS pathway and should be considered a relevant part of perioperative care.

2022-RA-1100-ESGO INOPERABLE MALIGNANT BOWEL OBSTRUCTION IN ADVANCED OVARIAN CANCER: A RETROSPECTIVE ANALYSIS OF PROGNOSTIC RADIOLOGICAL FEATURES IN PATIENTS SUPPORTED WITH PARENTERAL NUTRITION

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Introduction/Background Malignant bowel obstruction (MBO) is common in advanced ovarian cancer (AOC). Surgery and chemotherapy are of limited benefit for most patients who present with diffuse intraperitoneal, platinum-refractory disease. Home parenteral nutrition (HPN) may improve survival and quality of life. Little is known about which radiological features correlate with survival, to support clinical decision-making in this patient group.

Methodology Two radiologists undertook independent retrospective reviews of Computed Tomography (CT) findings of 63 patients with high-grade AOC and MBO admitted to a single tertiary centre, supported with parenteral nutrition between April 2019 and December 2021. Predefined radiological parameters associated with MBO were assessed for all patients. Multivariate analysis incorporating clinical prognostic factors were performed using Cox proportional hazards, identifying which radiological features correlate with poorer life-expectancy.

Results Median survival was 95 days (24–470 days), with 6 patients alive at data-lock. 70% patients presented with platinum-resistant disease, 17% treatment naïve. Most patients presented with small bowel obstruction (n=41). 43% had no obstruction transition point, 22% presented without bowel dilatation, 35% with no change to bowel wall calibre. Radiological features correlating with poor survival on multivariate analysis were large bowel obstruction (HR 7.29, p=0.007), presence of solid abdominal visceral metastasis (HR 2.89, p=0.008) and largest bulk of disease >5 cm (HR 3.14, p=0.033). Features that did not correlate with survival were functional vs mechanical obstruction, bowel dilatation, bowel wall thinning or thickening, presence of mesenteric disease, ascites or pleural effusion.

Conclusion Aetiology of MBO in AOC, whether functional or mechanical, single-site, or multilevel, does not correlate with survival. Large bowel involvement, presence of bulky disease and solid abdominal visceral metastasis may be useful radiological markers of poor prognosis to support clinical decision-making when considering HPN.

2022-RA-1101-ESGO PREDICTION OF INCOMPLETE CYTOREDUCTION IN PRIMARY DEBULKING SURGERY OF ADVANCED STAGE OVARIAN CANCER PATIENTS: USEFULNESS OF THE ENTIRE PERITONEAL CANCER INDEX (PCI) VERSUS EXCLUSIVE ASSESSMENT OF SMALL INTESTINE/MESENTERY/ HEPATODUODENAL LIGAMENT CARCINOSIS

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10.1136/ijgc-2022-ESGO.634

Introduction/Background Complete cytoreductive surgery (CRS) at primary debulking surgery in advanced stage ovarian cancer is a strong prognostic factor. Extent of peritoneal carcinosis, scorable by peritoneal cancer index (PCI), is critical for CRS success. In our cohort, we aimed to evaluate predictive power of PCI compared to sole consideration of carcinosis in small intestine, mesentery and hepatoduodenal ligament (CaIMHL).

Methodology Monocentric retrospective study at a tertiary care university hospital center with 795 invasive OC cases 2006 until 2020. Since 2014, PCI was routinely documented preceding debulking surgery. Inclusion criteria: stage FIGO III/IV disease and primary surgery using maximum effort with intention of complete CRS.

Results 116 patients had complete documentation of PCI and CRS. Median PCI was 20.5 (range, 2–36). CRS was successful (completeness of cytoreduction [CC]0, no residual macroscopic tumor) in 89 patients (76.5%). In these patients, PCI was significantly lower (median PCI 18, range 2–36, p = <0.001) compared to patients with residual tumor (CC1–3, median PCI 25, range 17–34). ROC analysis for PCI as predictor for residual tumor revealed an AUC of 0.855 (95% CI, 0.784–0.927). Cutoff PCI values of 16 and 24 predicted residual tumor with a sensitivity of 100% resp. 63.0%, and a specificity of 46.1% resp. 85.4%. Risk for residual tumor was increased with each point of PCI by 28.6% (OR 1.286, 95% CI, 1.153 to 1.434, p = <0.001) and a PCI > 24 increased the risk almost 10 fold (OR 9.938, 95% CI, 3.738 to 26.423, p = <0.001). Presence of CaIMHL increased the risk 3.304 fold without statistical significance (OR 3.304, 95% CI, 0.716 to 15.249, p = 0.126).

Conclusion Scoring of PCI had higher predictive power for residual tumor than presence of CaIMHL. PCI > 24 indicates high risk for residual tumor. These patients may benefit from interval debulking surgery.