FERTILITY-SPARING TREATMENT IN PATIENTS WITH STAGE I OVARIAN DYSGERMINOMA: AN ANALYSIS OF PREGNANCY OUTCOMES

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Introduction/Background To evaluate pregnancy outcomes in patients diagnosed with stage I ovarian dysgerminoma who underwent a fertility-sparing surgery in a tertiary-care center in Monza, Italy.

Methodology We performed a retrospective, observational study of women with a histologically confirmed diagnosis of ovarian dysgerminoma referred to our Institution from 1980 to 2020. We collected patients’ characteristics, surgical procedures and postoperative management. Descriptive statistics were performed for baseline characteristics, while Fisher’s exact test was used to investigate the association between type of surgery (ovarian cyst removal [CR] versus unilateral salpingo-oophorectomy [USO]), oncologic management (adjuvant chemotherapy [AC] versus follow-up [FU]) and pregnancy outcome. P<0.05 was considered significant.

Results Of 131 patients diagnosed with ovarian dysgerminoma, 49 were diagnosed with early-stage disease, treated with fertility-sparing surgery and received follow-up at our Institution. During follow-up 18 patients never planned a pregnancy or had already completed childbearing while 31 patients tried to conceive, with a live birth rate of 96.7%. No differences in delivery rate were found either between patients managed with CR only (3/31) and with USO (28/31), or between patients who received AC after surgery (12/31) and those who received follow-up only (19/31). Six patients reached physiologic menopause: mean age at menopause was 51.7 years.

Conclusion Fertility-sparing surgical treatment is safe and feasible for patients with early-stage ovarian dysgerminoma. In our population, live birth rate was not affected by the type of surgery or postoperative oncologic management; the effect of fertility-sparing surgery for early-stage ovarian dysgerminoma on age at menopause should be further investigated.

CARDIOPHRENIC LYMPH NODE INVOLVEMENT FOR OVARIAN CANCER

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Introduction/Background Cardiophrenic lymph node (CPLN) involvement is one of the most common presentation of stage IV ovarian cancer. Diagnostic and therapeutic approaches currently are not established.

Methodology Review of the literature dedicated to the role of CPLN in ovarian cancer patients.

Results There is no consensus about diagnostic criteria, metastatic involvement could be described if CPLN is more than 5–10 mm, also Qualitative Assessment Scale may be used additionally. PET-CT may be used in some cases, it is perspective method but with limited availability. Positive impact of CPLN removal on recurrence free and overall survival may be achieved in the case of complete surgical cytoreduction (no visible disease). In such case omitting of CPLN lymphadenectomy is the same as left residual disease. It was shown, that if metastatic CPLN were not removed, they are very likely to be the place of recurrence and the rates of thoracic cavity recurrence are rising. Some research groups that analyzed patients’ groups with criteria of optimal cytoreduction (residual tumor less than 1 cm) had shown no influence of CPLN removal on recurrence free and overall survival. That fact underlines the importance of CPLN as a reservoir of residual tumor cells. CPLN removal is safe procedure with low rates of specific complications and no influence in terms of hospital stay or adjuvant chemotherapy admission.

Conclusion There are insufficient data about the role of CPLN in ovarian cancer patients. Potentially it is underestimated from oncological and surgical point of view. Both retrospective and prospective studies are needed to confirm it.
required to assess whether patients undergoing MIRRORS-protocol have non-inferior overall-survival compared to open interval CRS.

Introduction/Background Ovarian cancer (OC) is the eighth leading cause of cancer in women worldwide, with high mortality due to the advanced stage at which it is diagnosed. Neoadjuvant chemotherapy is a treatment option in patients who are not candidates for primary surgery. HIPEC (Hyper-thermic Intra-peritoneal Chemotherapy) is a treatment option during interval laparotomy. Our objective is to present the patterns of recurrence between patients treated with chemotherapy and interval surgery and those who underwent HIPEC, within an institutional protocol.

Methodology The review of 33 patients who were treated between 2016–2022 was carried out, 17 of them underwent HIPEC during interval laparotomy. Demographic variables and sites of recurrence, as well as disease status, were analyzed.

Results During a median follow-up of 36 months, from 16 cases in the non-HIPEC group, there were 8 recurrences (50%): 2 systemic (lung, liver), 1 in the groin, 2 in the peri-gastric nodes, 1 peritoneal, and 1 in the gastric wall; while in the HIPEC group, 6 patients (35.3%) recurred: 3 systemic, 1 in a pelvic node and 2 in peritoneum. In the non-HIPEC group, there were 6 (37.5%) deaths, 4 (25%) patients are alive with disease, and 6 alive without evidence of disease. In the HIPEC group, 5 (29.4%) patients died, 3 (17.6%) are alive with disease, and 9 (52.9%) are alive without disease.

Conclusion Various patterns of recurrence have been reported in patients after interval surgery, being the peritoneum and abdominopelvic lymph nodes the most frequent sites; and post-HIPEC recurrence are most common in visceral tissues. In our series, the recurrences are highly variable in the non-HIPEC group, with systemic disease being the most common; in the HIPEC group, systemic recurrences are more alike with usual patterns in OC, however, the peritoneum continues to be a point of relapse despite the HIPEC.

Introduction/Background Surgical cytoreduction for epithelial ovarian cancer (EOC) is a complex procedure, whereas that intra-operative surgical decision-making remains a core feature. Explainability Artificial Intelligence (XAI) could potentially interpret the influence of human factors on the surgical effort for the cytoreductive outcome in question.

Methodology The retrospective cohort study evaluated 560 consecutive EOC patients who underwent cytoreductive surgery between January 2014 and December 2019 in a single UK institution. The xXtreme Gradient Boosting (XGBoost) was employed to develop the predictive model including patient- and operation-specific features, readily available in tertiary centers, and novel features reflecting human factors in surgical heuristics. The area under the curve (AUC) was used to evaluate model performance. The SHapley Additive exPlanations (SHAP) framework was used to provide global and local explainability of the predictive model.

Results A surgical complexity score (SCS) cut-off value of five was calculated using a receiver operator characteristic (ROC) curve, above which the probability of incomplete cytoreduction was more likely (area under the curve [AUC] =0.644; 95% [CI]=0.598–0.69; sensitivity and specificity 34.1%, 86.5%, respectively; p=0.000). The XGBoost model performance for the prediction of the above threshold surgical effort outcome was satisfactory (AUC=0.77; 95%[CI] 0.69–0.85; p<0.05). Turning points’ showing preference towards above-given threshold surgical effort included; consultant surgeons with <12 years of experience, age <53 years old, who, when attempting primary cytoreductive surgery, recorded the presence of ascites, a Pancreatic Carcinomatosis Index >4, and a Peritoneal Carcinomatosis Inde x >7, in a surgical environment with optimization of infrastructural support.

Conclusion Surgical intra-operative decision-making is critically layered upon situational awareness and the impact of human factors. We demonstrated a fine balance between predictive accuracy and descriptive interpretability. Using XAI, we provided a two-layered explainability and we pinpointed the most salient feature interactions. Selected decreased surgical effort may be associated with surgeon age.

Introduction/Background Survival benefit of secondary cytoreductive surgery (SCS) in platinum-sensitive relapsed ovarian cancer (PSROC) has been demonstrated in recent randomised controlled trials. Data on SCS for PSROC from resource-limited settings are scarce. This study aimed to evaluate the peri-operative and oncologic outcomes of SCS in Indian women with PSROC.

Methodology A review was conducted for all patients who underwent SCS for PSROC between 2012 and 2021 at Tata Medical Center. Clinical information including patient and disease characteristics, surgical details, and survival data was...