and 0.181–0.837). Additionally, PFI >12 months was associated with better PFS (adjusted HR, 0.489; 95% CIs, 0.291–0.822).

Conclusions PFI >12 months and optimal cytoreduction potentially predicted 13 or more cycles of BMT and were related to improved survival in the first platinum-sensitive recurrence of ovarian cancer.

**Abstract EP277/#369**

**ABDOMINAL TISSUE CONCENTRATIONS CARBOPLATIN AND INFLAMMATORY PROTEIN IN A HIPEC PROCEDURE – ASSESSMENT IN A NOVEL EXPERIMENTAL PORCINE MODEL**

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**Objectives**

Peritoneal dissemination from ovarian cancers is associated with poor prognosis and rapid disease progression. Hyperthermic intraperitoneal chemotherapy (HIPEC) is an antineoplastic treatment, which has improved survival and recurrence-free survival, but little is known about the acquired chemotherapy concentrations in local tissues. The aim of this study was to assess concentrations of carboplatin and inflammatory protein markers during and after HIPEC treatment dynamically and simultaneously in various abdominal organ tissues by means of microdialysis in a novel porcine model.

**Methods**

8 pigs underwent imitated cytoreductive surgery followed by HIPEC (90 min) using a carboplatin dosage of 800 mg/m². Microdialysis catheters were placed for sampling of drug concentrations in various tissues: peritoneum, liver, bladder wall, mesentery, and in different depths of one mm and four mm in the hepatoduodenal ligament and rectum. During and after HIPEC, dialysates and blood samples were collected over eight hours.

**Results**

No significant differences in mean carboplatin AU_{CP_{last}} (range: 2657–5176 min x μg/mL), mean carboplatin C_{max} (range: 10.6–26.0 μg/mL) and mean carboplatin T_{max} (range: 105–206 min) were found between the compartments. In plasma there was a tendency towards lower measures. Inflammatory protein marker analysis is in progress, and there are no available results at the time of submission.

**Conclusions**

Equal carboplatin distribution in abdominal organ tissues, detectable concentrations for at least six hours after HIPEC completion, and a carboplatin penetration depth of minimum four mm were found. There are no available conclusions for the inflammatory protein marker results at the time of submission.

**EP278/#101 Applications of Machine Learning in Ovarian Cancer: A Systematic Review**

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**Objectives**

Machine learning(ML) may play a crucial role in ovarian cancer prediction. The objective was to review the literature on the application of ML in OC and report the most commonly used algorithms and their performance compared to existing prediction tools and traditional statistics.

**Methods**

This is a systematic review of published literature from January 1985-March 2021 on the use of ML in OC. An extensive search of electronic library databases was conducted. Four independent reviewers screened the articles initially by title then full text. Quality was assessed using the MINORS criteria.

**Results**

Applications of ML were in clinical datasets(33%), preoperative diagnostics(30.7%), serum biomarkers(21.6%), genomics(12.5%), and cytoreductive outcomes(2.3%). Most commonly applied algorithms were Support Vector Machine (SVM)(28%)and Neural Networks(NN) (25.28%). The number of publications on ML in OC increased three-fold from 20 (1994–2010) to 67(2011–2021). Only 9 studies compared ML to traditional statistics. Among 29 clinical dataset studies, 4 compared ML with logistic regression(LR). Two studies