with a meta-analysis of cases in the literature to provide insight into current treatment regimes and outcomes.

**Methodology** A systematic review was conducted of the English language literature to identify articles published regarding outcomes and treatment modalities of patients having anaplastic carcinoma foci within mucinous ovarian tumours. References of these articles were reviewed to identify all possible cases in the literature. Where treatment regimes were not listed in the publications the contact author was reached for comment. These cases were then combined with 7 cases from our own institution for a multivariate and survival analysis.

**Result(s)** A total of 66 cases were identified in the literature. Average age 43.7 (median 40.5), range 15-74yo. 83% of patients underwent a total abdominal hysterectomy, 17% of patients did not undergo a hysterectomy, with the remaining 2 cases having been done laparoscopically. 70% of patients underwent a BSO, the remainder a USO. 50% of cases were FIGO stage IA1 at the time of diagnosis, of these 16% died during follow up with 3 of those dying within 12 months of diagnosis.

**Conclusion** Anaplastic mural nodules arising on a background of mucinous ovarian carcinoma are associated with heterogeneous outcomes when considering progression free survival and overall survival. Their treatment within the literature is highly variable, particularly regarding adjuvant therapy. Patients with improved overall survival and progression free survival were more likely to be lower stage and have a smaller adnexal mass at diagnosis.

**Abstract 282**

**Figure 1**

Two-year progression-free-survival

Two-year overall-survival

**Abstract 282 Figure 1**

prognosis estimation was formulated as a binary classification problem. Dataset was split into training (80%) and test (20%) cohorts with repeated random sampling until there was no significant difference (p=0.20) between the two cohorts. A ten-fold cross-validation was applied. Various state-of-the-art supervised ML classifiers were tested, including Support-Vector-Machines (SVMs), K-Nearest Neighbors (KNNs), Ensemble Classifiers, and Naïve Bayes, based on a set of performance metrics. These results were directly compared to conventional Logistic Regression (LR). For feature selection, multivariate feature ranking using the MRMR method was carried out.

**Result(s)** Two hundred nine patients were identified. The model’s mean prediction accuracy reached 73%. We demonstrated that SVM and Ensemble Discriminant algorithms outperformed Logistic Regression in accuracy indices. The probability of achieving a cancer-free state was maximized with a combination of primary cytoreduction, good performance status, and maximal surgical effort (AUC 0.63). Standard chemotherapy, performance status, tumor load, and residual disease were consistently predictive of the two-year overall survival (AUC 0.63-0.66) (figure 1). The model recall and precision were greater than 80%.

**Conclusion** Appropriate feature selection is required when building a HGSOC model for two-year prognosis prediction. For HGSOC prognosis, one should consider not only the patient’s disease burden but also their overall medical status and ability to undergo extensive surgery, resulting in survival benefits alongside with standard chemotherapy.

**Abstract 283**

**ANAPLASTIC MURAL NODULES WITHIN MUCINOUS OVARIAN CARCINOMA, A CASE SERIES ASSESSING TREATMENTS AND OUTCOMES**

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**Introduction/Background** Mucinous ovarian tumours account for ~10% of primary ovarian neoplasia and a generally diagnosed at an early stage with relatively favourable oncological outcomes. However those possessing anaplastic carcinoma within mural nodules rarer still and carry with them a poor prognosis and lack of consensus regarding their optimal treatment regime. Whilst a great deal of research has been published focusing on their histopathological and immunohistochemical characteristics, there is limited evidence nor consensus regarding their ideal adjuvant treatment regimes. This study sought to combine cases from our unit

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