chemotherapy (p=0.008) were significantly associated with overall survival.

Conclusion/Implications Our findings suggest that cytoreductive surgery and intraperitoneal chemotherapy are important treatment options for improving survival in patients with DMPM. Further research is needed to better understand the optimal treatment approach for this rare and aggressive cancer.

EP361/#722 CLINICOPATHOLOGICAL FEATURES AND SURGICAL PROCEDURE OF ADNEXAL MASSES WITH ABDOMINAL PAIN IN PEDIATRIC AND ADOLESCENT PATIENTS

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Introduction This study investigated the clinicopathological features and surgical procedures of adnexal masses with abdominal pain in pediatric and adolescent patients.

Methods Retrospective cohort study of 212 pediatric and adolescent patients was performed who admitted for abdominal pain and presenting with an adnexal mass between March 2012 to December 2019

Results The proportion of patients presented with acute onset pain, persistent or recurrent pain, and duration of pain less than 3 months was significantly higher in the TO group than in the non-TO group ($P < 0.001$). 69.2% of patients with torsion had fixed pain sites, compared with 42.2% in patients without torsion ($P < 0.001$). The symptom of nausea and vomiting was more common among girls with torsion ($P < 0.0001$). 88.5% of girls with torsion had an ovarian cyst/mass ≥ 5 cm, compared with 75.0% in girls without torsion ($P = 0.038$). 66.7% of girls underwent ovary-preserving surgery, compared with 92.2% in patients without torsion. The most common pathologic types were mature teratoma and simple cyst, accounting for 29.4% and 25.6%, respectively. The multivariate analyses confirmed that mass size greater than 5 cm, acute onset pain, persistent or recurrent pain were significantly associated with increased risk of torsion.

Conclusion/Implications Most pediatric or adolescent patients with adnexal torsion present with acute onset of persistent, recurrent pain and had fixed pain sites. Thus, a strategy of earlier and liberal use of Diagnostic Laparoscopy (DL), particularly with a pelvic mass size greater than 5 cm, acute onset pain, persistent or recurrent pain, may improve ovarian salvage.

EP362/#696 NEW PATIENT-DERIVED MODELS AND THERAPY SCREENING IN MUCINOUS OVARIAN CARCINOMA

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Introduction Mucinous ovarian carcinoma (MOC) is a rare cancer with poor outcomes when advanced due to innate resistance to standard of care platinum-taxane chemotherapy regimens. There is a lack of evidence to support different chemotherapy choices due to poor clinical trial recruitment and a scarcity of suitable pre-clinical models. Our objective was to develop new patient-derived models of MOC and use them to test therapies.

Methods We collected tissue samples with consent from women undergoing surgery for primary or recurrent MOC. We optimised culture conditions for growing tumour cells as 3D organoids in Matrigel, which included specific growth factors and processing conditions. Successful cultures were characterised by immunohistochemistry (CK7, CK20, PAS, PAX8, p53, HER2) and DNA and RNA sequencing for comparison to the original tumour. Organoids were tested with 14 therapeutic agents and evaluated using CellTiter-Glo, brightfield imaging and Hoechst staining.

Results We successfully cultured eight MOC as organoid lines that showed strong concordance with tumour genetic and protein characteristics. Drug screening showed little response to platinum-based chemotherapies. Variable responses were seen with paclitaxel, mitomycin C and gemcitabine, with the strongest responses observed with topoisomerase I inhibitors irinotecan and topotecan.

Conclusion/Implications This is the first cohort of organoid models for MOC tested across a wide range of chemotherapeutic agents. Results support clinical observations of limited response to platinum chemotherapy, while other therapies show some promise as alternatives. Future work will explore combinations of agents as well as correlation back to genetic and gene expression characteristics to assess biomarkers of response.

EP363/#213 THE ROLE OF SURGEON SPECIALTY IN MANAGEMENT AND SURVIVAL OF MALIGNANT OVARIAN GERM CELL TUMORS: A POPULATION-BASED STUDY

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Introduction The aim of this study is to describe treatment and survival outcomes in patients with malignant ovarian germ cell tumors (MOGCT) who had surgery by general gynecologists (GG) versus gynecologic oncologists (GO).

Methods A population-based retrospective cohort study, including adult patients with MOGCT identified in the provincial cancer registry (1996–2020). Baseline characteristics, surgical and chemotherapy treatment were compared between those with surgery by GG or GO. Cox proportional hazards (CPH) model was used to determine if surgeon specialty was associated with overall survival (OS).

Results Overall, 363 patients were included. One-hundred and sixty (44%) patients underwent surgery by GO and 203 (56%) by GG. There were higher rates of stage II-IV in the GO group (27.5% vs 3.9%, $p<0.001$)(table 1). Multivariable logistic regression with age, histologic type, and socioeconomic status showed stage of disease was the only factor associated with having surgery by a GO (OR 6.79, 95% CI

Abstract EP363/#213 Table 1 Baseline characteristics and surgical management stratified by surgeon's specialty

Variable	Gynecologic oncology n= 160	General gynecology n=203	P value
Age, years, median	29 (23-38)	31 (24-38)	0.280
Stage: n(%)			<.0001
I	48 (30.0%)	56 (27.6%)	
II-IV	44 (27.5%)	8 (3.9%)	
Hysterectomy, n(%)	42 (26.3%)	37 (18.2%)	0.065
Oophorectomy: n(%)			0.015
Unilateral	106 (66.3%)	151 (74.4%)	
Bilateral	45 (28.1%)	33 (16.3%)	
Staging surgery, n(%)	48 (30)	19 (9.3)	<.0001
Chemotherapy, n(%)	103 (64.4%)	76 (37.4%)	<.0001
Time-to-chemotherapy, days, median	36 (24-59)	47 (28-78)	0.056

2.83–16.30, p<0.001). 5-year OS was 90% vs 93% in the GO vs GG (p=0.39). CPH model showed factors associated with increased rate of death were age at diagnosis (HR 1.09, 95% CI 1.07–1.12) and chemotherapy (HR 3.12, 95% CI 1.44–6.75). Surgeon specialty was not independently associated with all-cause death (HR 1.04, 95% 0.51–2.15, p=0.91).

Conclusion/Implications In this group of MOGCT, the difference in 5-year OS was not statistically significant between patients having surgery by GO compared to GG, although survival rates were lower than expected in the GG group despite their low-risk features. Patients with confirmed/suspected MOGCT should be referred to GOs for optimal management.

AS16. Screening/Early detection

EP368/#235

IS CYTOLOGICAL EVALUATION IN THE CERVICAL CANCER SCREENING PROGRAM IN JAPAN INDEPENDENT OF THE TEST RESULTS FOR HPV? NILM VS. ASC-US IN HPV-POSITIVE CASES

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Introduction Japan is considering introducing 'HPV test primary cytology triage' for cervical cancer screening. Among HPV-positive cases, NILM is considered as negative, and ASC-US or higher as positive for triage result. Since cytology is based on cell morphology, the results of cytological evaluation, whether for triage or screening, should be consistent. However, cytologists not blinded to the results of HPV testing might provide biased results. Therefore, we attempted to confirm if the results of cytological evaluation could be influenced by the results of HPV testing.

Methods From the Usefulness Study on Combined Cytology and HPV Testing, we listed the laboratories conducting cytological evaluation and HPV testing, respectively. We asked cytology laboratories if they could refer to the HPV test results while providing cytology decisions, and if they might change their decisions in cases with positive HPV test results.

Results A total of 52 each of HPV testing laboratories and cytological laboratories were included; 31 of these conducted both HPV testing and cytological evaluations. In all, 6 cytological laboratories had access to the HPV test results, and in 5, the results of cytology could be changed from NILM to ASC-US depending on the HPV test results.

Conclusion/Implications About 10% of cytological laboratories have access to the HPV test results, which often influences the results of their cytology evaluation. In order to ensure accuracy of cytology triage, laboratories should be discouraged from changing their evaluation results based on the HPV test results, and to monitor the distribution of the triage results.