Abstract 577 Table 2 Multivariable analysis of risk factors for endometrial cancer recurrence

Predictor	No. of cases	HR	95% CI	P-value
Stage				
IA	192			
≥IB*	503	1.77	1.02 to 3.07	0.04
Grade				
1-2	602			
3	93	2.42	1.28 to 4.58	0.01
LVSI				
none or mild	664			
substantial	31	3.90	2.07 to 7.37	<0.0001
L1CAM				
≤10% (negative)	659			
>10% (positive)	36	2.32	1.12 to 4.83	0.02
TCGA				
MMRd	198	1	1	
POLE mutant	43	0.34	0.08 to 1.46	0.15
p53 abnormal	31	2.11	0.90 to 4.95	0.09
NSMP	423	0.70	0.41 to 1.18	0.18
CTNNB1				
wild type	558			
mutated	137	1.76	0.98 to 3.13	0.06
MELF				
none	594			
present	101	0.63	0.28 to 1.41	0.26

Result(s)* MELF pattern of invasion was identified in 129 (16%) cases, and was associated with grade 1-2 and deep myometrial invasion (table 1). MELF positive tumours were significantly more often found in the no-specific-molecular-profile (NSMP) subclass (n=95, 84.8%). Of these NSMP MELF positive tumours 91.1% were *CTNNB1*-wildtype (n=82) and 26.5% *KRAS*-mutated (n=22). Uncorrected survival analysis showed a significantly favourable impact of MELF on risk of recurrence (p=0.031). After correction for stage, grade, LVSI, molecular EC class, L1CAM and *CTNNB1*, MELF pattern of invasion did not significantly impact clinical outcome (HR 0.63 95%CI 0.28 – 1.41, p=0.26), table 2.

Conclusion* MELF-pattern of invasion was identified in 16% of early stage (high)intermediate risk EC, and had no independent prognostic impact. However, our results show that MELF pattern of invasion is more frequently found in NSMP *KRAS*-mutated EC without CTNNB1 mutations. These distinct molecular features could contribute to further refinement of the NSMP-subgroup of EC pointing to potential novel treatment targets.

588 A DIAGNOSIS OF INFLAMMATORY MYOFIBROBLASTIC TUMOUR FOLLOWING LAPAROSCOPIC MYOMECTOMY WITH MORCELLATION: A CASE REPORT AND REVIEW OF THE LITERATURE

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Introduction/Background* Inflammatory myofibroblastic tumours (IMT) are rare spindle cell neoplasms of indeterminate malignant potential, commonly found in the lungs, but also originating from various organs ranging from head and neck, gastrointestinal to the genitourinary system. IMTs of the female gynaecological tract are rare and may mimic benign leiomyoma in both clinical presentation and appearance on imaging. We describe a case of uterine IMT, diagnosed after a laparoscopic myomectomy with in-bag morcellation.

Methodology

Result(s)* A 37-year-old woman was on follow-up for uterine mass on pelvic ultrasound, slowly enlarging to 3.3cm, presumed to be a fibroid. Although she did not have significant pressure symptoms or menorrhagia, she requested for removal and underwent laparoscopic myomectomy with morcellation-in-bag.

Intra-operatively, a 6cm mass was seen on the uterine posterior wall, macroscopically and morphologically consistent with that of benign leiomyoma. However, immunohistochemistry and molecular sequencing were positive for ALK-1 hence a diagnosis of IMT was made. Diffuse staining for desmin, H-caldesmon and ER was also noted. Following a multi-disciplinary tumour board, consensus was for a CT scan of the thorax, abdomen and pelvis(which showed no extra-uterine spread) and for regular surveillance scans.

A review of the literature shows no universal consensus as to optimal treatment of uterine IMT. Majority of cases have been treated with surgical excision – open, laparoscopic or hysteroscopic. While most cases have a benign course with no recurrence/relapse, local recurrences are a known complication.

Given controversies in recent years over power morcellation potentially leading to dissemination of undiagnosed uterine leiomyosarcomas, morcellation-in-bag has become standard practice for all laparoscopic myomectomies or hysterectomies requiring morcellation. There is little data regarding outcomes of other types of uterine tumours, or IMT specifically, with regards to outcomes following morcellation. The only two documented cases in the literature specifically involving morcellation resulted in local recurrences requiring further treatment.

Conclusion* We present a case of uterine IMT diagnosed following laparoscopic myomectomy and in-bag morcellation. While the patient has no sign of extrauterine spread at present, further follow-up will be required to monitor for any progression or recurrence. Outcomes following morcellation or specific other treatment options will need to be further studied.

595 IMPLEMENTATION OF COLLABORATIVE TRANSLATIONAL RESEARCH (TRANSPORTEC) FINDINGS IN AN INTERNATIONAL ENDOMETRIAL CANCER CLINICAL TRIALS PROGRAM (RAINBO)

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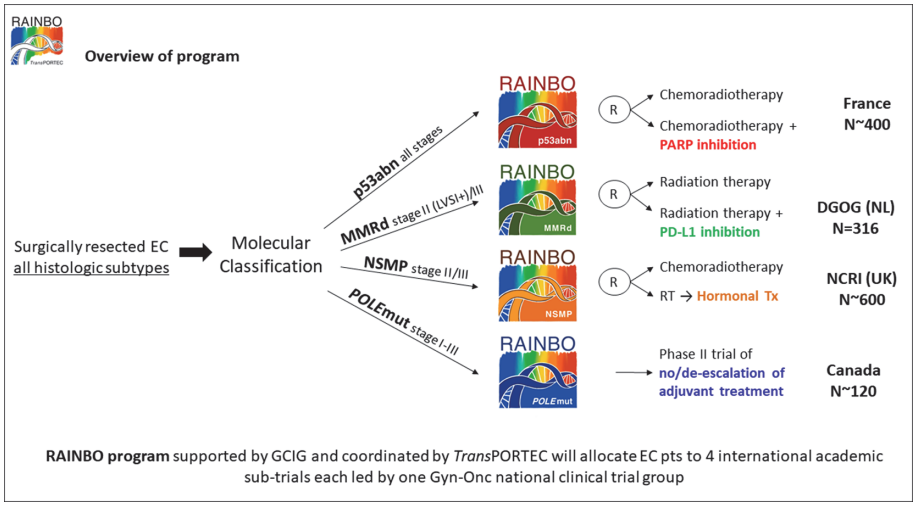
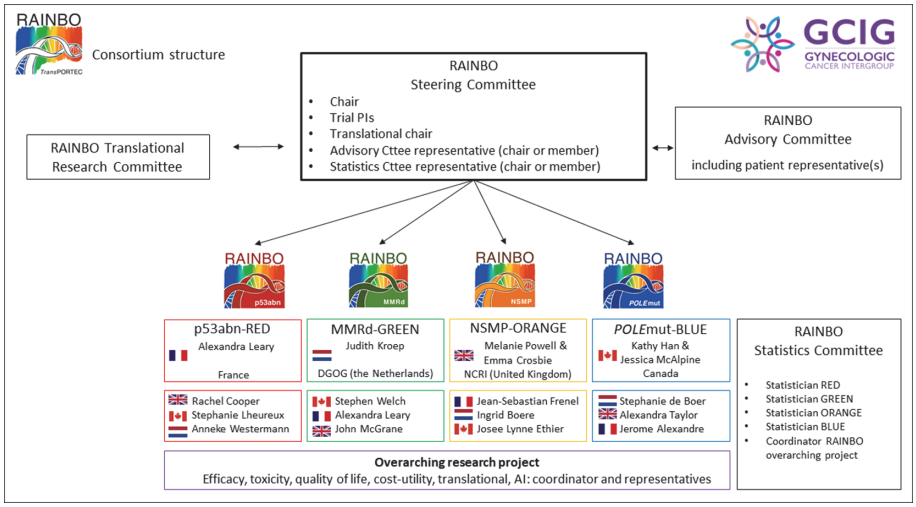
Introduction/Background* The TransPORTEC Consortium was established in 2013 by the PIs and translational science representatives of the PORTEC-3 trial groups from the Netherlands, United Kingdom, Australia, Canada and France. Purpose of the collaboration is to improve treatment of endometrial cancer (EC) patients. Here, we evaluate our experience with international collaboration to identify challenges and strengths.
Methodology Result(s)*: Since its establishment, TransPORTEC had a strong scientific team of chief investigators, translational leads and core members from participating groups. Twice-yearly TransPORTEC-meetings were organised to build and maintain friendships, share results and discuss new proposals. Over time, the TransPORTEC-biobank has expanded with PORTEC-trial tumour tissues and other cohorts, and is now the world's largest set of molecularly classified ECs. The research focus has expanded to include molecular cancer immunology and digital pathology. The group's output include 10 scientific papers and numerous posters and presentations on (inter)national meetings. Their analysis of PORTEC-3 showing differences in chemotherapy effect by molecular group led to initiating an international program with 4 clinical trials on Refining Adjuvant treatment IN endometrial cancer Based On molecular features (RAINBO) to compare personalised to standard treatment in terms of efficacy, toxicity, quality of life and cost-utility (figure 1). Tumour material of all participants will be collected for translational research. To achieve this, the consortium evolved: new talented members were attracted and trial-specific and expertise teams were installed (figure 2). Despite this impacting on group equilibrium, the collaboration is continuously productive. Keys to success were frequent meetings, sharing of draft protocols and experiences with contacting (inter)national research organisations and potential funders. The first of the RAINBO trials is expected to open by the end of 2021 and the program will probably fuel translational research for years to come.
Conclusion* International research collaborations are dynamic and demanding. Challenges include: balancing between a stable organisational structure and flexibility to adapt to opportunities; providing all members with a satisfying share; and acquisition of funding for academic-sponsored international trials. Strengths are the profound interaction and trust between members with different expertise and backgrounds and shared ambitions and successes, resulting in unique and innovative academic research projects with leverage.



Abstract 595 Figure 1



Abstract 595 Figure 2