

independent factors associated with an improvement in the physical domain of WHOQOL-bref.

**Conclusions** Women who used a vaginal dilator showed improvement in the physical domain of QOL after 12 months of intervention.

## IGCS19-0743

### 21 PREVALENCE OF BRCA1/2 MUTATION AND ALTERATIONS OF HOMOLOGOUS RECOMBINATION DEFICIENCY (HRD) IN UTERINE LEIOMYOSARCOMA: A RETROSPECTIVE, MONOCENTRIC STUDY

<sup>1</sup>F Ciccarone, <sup>1</sup>G Ferrandina\*, <sup>2</sup>GF Zannoni, <sup>2</sup>G Angelico, <sup>3</sup>E Capoluongo, <sup>1,4</sup>G Scambia. <sup>1</sup>Fondazione Policlinico Universitario A. Gemelli IRCCS, Dipartimento Scienze della Salute della Donna del Bambino e di Sanità Pubblica- UOC di Ginecologia Oncologica, Roma, Italy; <sup>2</sup>Fondazione Policlinico Universitario A. Gemelli IRCCS, Dipartimento Scienze della Salute della Donna del Bambino e di Sanità Pubblica- Unità di Ginecologia e Patologia Mammaria-, Roma, Italy; <sup>3</sup>Fondazione Policlinico Universitario A. Gemelli IRCCS, Laboratorio Diagnostica Molecolare e Genomica, Roma, Italy; <sup>4</sup>Università Cattolica del Sacro Cuore, Istituto di Ginecologia e Ostetricia, Roma, Italy

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**Objectives** Uterine leiomyosarcoma (uLMS) is a rare, very aggressive malignancy; molecular characterization is still uncertain, thus limiting the development of novel target based treatments.

This study aims at analyzing i) the prevalence rate of BRCA1/2 mutation and HRD alterations in ULMS, and ii) the association of BRCA1/2 and HRD abnormalities with clinical features.

**Methods** We planned to carry out a retrospective study on formalin-fixed paraffin-embedded (FFPE) samples of uLMS collected at the Fondazione Policlinico Universitario A. Gemelli, Rome. DNA extraction will be carried out using an automated device (MagCore HF16 Plus, Diatech Lab Line, Jesi, Italy). The mini Homologous Recombination Solution (mini HRS by SOPHiA GENETICS) is a capture-based target enrichment kit and full access to the SOPHiA DDM platform, able to identify mutations within BRCA1, BRCA2, TP53 and RAD51C genes on FFPE-deriving DNA.

**Results** The Next-Generation Sequencing (NGS) data were evaluable in 81 out of 92 FFPE deriving DNA samples. The mean coverage of each sample was 2000x, while the minimum acceptable for variant calling at 5% of MAF was 500x. The following pathogenic variants were identified: 21 patients with p53 mutation, all truncating or frameshift; 2 patients carriers of indel in Brca2; 3 patients with Brca1 truncating variants; 1 patient with both brca1 and brca2 mutations. Two novel p53 truncating variants have been identified. The evaluation of possible germline origin is now under evaluation for overall carrier patients alive.

**Conclusions** Final results could open novel perspectives terms of disease pathogenesis, and potential use of target based drugs (e.g. PARP inhibitors).

## Plenary 4: Presidential Plenary

### IGCS19-0758

#### 22 OPEN VS. MINIMALLY INVASIVE RADICAL TRACHELECTOMY IN EARLY STAGE CERVICAL CANCER: INTERNATIONAL MULTICENTER IRTA STUDY RESULTS

<sup>1</sup>G Salvo\*, <sup>1</sup>PT Ramirez, <sup>2</sup>X Wu, <sup>3</sup>M Leita, <sup>4</sup>BJ Mosgaard, <sup>5</sup>H Falconer, <sup>6</sup>M Perrotta, <sup>7</sup>G Rondón, <sup>8</sup>A Kucukmetin, <sup>9</sup>I Berlev, <sup>10</sup>J Persson, <sup>11</sup>M Vieira, <sup>12</sup>D Cibula, <sup>13</sup>C Fotopoulou, <sup>14</sup>K Liu, <sup>15</sup>R Ribeiro, <sup>16</sup>ME Capilna, <sup>17</sup>D Kaidarova, <sup>18</sup>G Baiocchi, <sup>2</sup>X Li, <sup>2</sup>J Li, <sup>3</sup>S Pedra-Nobre, <sup>5</sup>K Pálsdóttir, <sup>6</sup>F Noll, <sup>19</sup>S Rundle, <sup>9</sup>E Ulrikh, <sup>12</sup>R Kocian, <sup>13</sup>S Saso, <sup>14</sup>Z Hu, <sup>20</sup>A Tsunoda, <sup>21</sup>M Gheorghe, <sup>17</sup>R Bolatbekova, <sup>22</sup>B Pitcher, <sup>23</sup>R Pareja. <sup>1</sup>University of Texas MD Anderson Cancer Center, Department of Gynecologic Oncology and Reproductive Medicine, Houston, USA; <sup>2</sup>Fudan University Shanghai Cancer Center, Gynecologic Oncology, Shanghai, China; <sup>3</sup>Memorial Sloan-Kettering Cancer Center, Department of Surgery, New York, USA; <sup>4</sup>Univ. Hospital Copenhagen- Rigshospitalet, Gynecological, Copenhagen, Denmark; <sup>5</sup>Karolinska Institutet, Women's and Children's Health, Stockholm, Sweden; <sup>6</sup>Hospital Italiano de Buenos Aires, Ginecologia, Buenos Aires, Argentina; <sup>7</sup>Instituto de Cancerología – Las Américas, Ginecología Oncológica, Medellín, Colombia; <sup>8</sup>Queen Elizabeth Hospital, Northern Gynaecological Oncology Centre, Gateshead, UK; <sup>9</sup>N.N.Petrov National Medical Research Center of Oncology, Oncogynaecological, Saint-Petersburg, Russia; <sup>10</sup>Skane University Hospital- LUND, Department of Obstetrics and Gynecology, Lund, Sweden; <sup>11</sup>Barretos Cancer Hospital, Gynecologic Oncology, Barretos – SP, Brazil; <sup>12</sup>First Faculty of Medicine- Charles University, Gynecologic Oncology Center- Department of Obstetrics and Gynecology- General University Hospital, Prague, Czech Republic; <sup>13</sup>Imperial College London, Gynecologic Oncology, London, UK; <sup>14</sup>Renji Hospital- School of Medicine- Shanghai Jiaotong University, Department of Gynecologic Oncology, Shanghai, China; <sup>15</sup>Hospital Erasto Gaertner, Department Gynecologic Oncology, Curitiba, Brazil; <sup>16</sup>University of Medicine- Pharmacy-Science and Technology of Targu Mures, Department First Obstetrics and Gynecology Clinic, Targu Mures, Romania; <sup>17</sup>Kazakh Institute of Oncology and Radiology, Oncogynecology, Almaty, Kazakhstan; <sup>18</sup>AC Camargo Cancer Center, Gynecologic Oncology, Sao Paulo, Brazil; <sup>19</sup>Northern Gynaecological Oncology Centre, Gynaecological Oncology, Gateshead, UK; <sup>20</sup>Hospital Erasto Gaertner/Universidade Positivo, Gynecologic Oncology, Curitiba, Brazil; <sup>21</sup>Clinical County Emergency Hospital Targu Mures, First Obstetrics and Gynecology Clinic, Targu Mures, Romania; <sup>22</sup>University of Texas MD Anderson Cancer Center, Department of Biostatistics, Houston, USA; <sup>23</sup>Clinica Astorga- INC-HGM- UPB, Gynecologic Oncology, Medellín, Colombia

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**Objectives** To compare disease-free survival (DFS) between patients who underwent open (ORT) versus minimally invasive (MIS) radical trachelectomy (RT) [laparoscopic (LRT) or robotic (RRT)].

#### Methods

**Eligibility criteria included** 1) RT and pelvic lymphadenectomy with/without sentinel lymph node mapping, 2) 1/2005 to 12/2017 3) squamous, adenocarcinoma, or adenosquamous histology, 4) stage IA2-IB1, 5) tumors ≤2 cm, 6) 15 or more cases per center.

**Results** A total of 698 patients [open (n=388) vs. MIS (310)] were included. The median follow-up time was 40.9 months (range, 1–179.1) [MIS 38.6 (range, <1–128.1) vs. open 68.3 (range, <1–200.8) (p<0.001)]. MIS patients had smaller tumors (no visible lesion: 76.8% vs 57.0%, < 1 cm: 1.9% vs. 2.8%, 1–2 cm: 21.3% vs. 40.2%, p<0.001) and lower rates of residual disease (42.9% vs. 56.2% p<0.001). (table 1) There were no differences in rates of parametrial involvement (2.1% vs. 1.3% p=0.055), vaginal involvement (0.8% vs. 1.4% p=0.198),

Abstract 22 Table 1 Patient characteristics

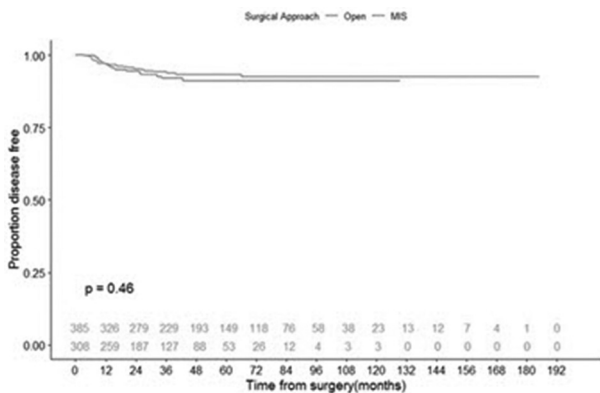
Characteristic	Open N = 388	MIS N = 310	P-value
Age (years) [median (min, max)]	32.0 (20.0, 64.0)	31.0 (18.0, 45.0)	0.094
Tumor size			< 0.001
No visible lesion	221 (57.0%)	238 (76.8%)	
< 1 cm	11 (2.8%)	6 (1.9%)	
1-2 cm	156 (40.2%)	66 (21.3%)	
Preoperative histology			0.021
Squamous	249 (64.2%)	179 (57.7%)	
Adenocarcinoma	121 (31.2%)	124 (40.0%)	
Adenosquamous	18 (4.6%)	7 (2.3%)	
Surgical radicality classification			< 0.001
Dixes-Rutledge-Smith classification			
Type 2 RT	76 (19.6%)	38 (12.3%)	
Type 3 RT	9	1	
Quincy-Morrow classification			
Type B	280 (72.2%)	181 (58.4%)	
Type C1/C2	30	104	
Neither	250	77	
Not reported	18 (4.6%)	70 (22.6%)	
	14 (3.6%)	21 (6.8%)	
Surgical time (minutes) [median (min, max)]	180.0 (45.0, 425.0)	262.0 (120.0, 485.0)	< 0.001
Estimated Blood Loss (mL) [median (min, max)]	200.0 (50.0, 4500.0)	50.0 (0.0, 3000.0)	< 0.001
Length of stay (days) [median (min, max)]	6.0 (1.0, 23.0)	2.0 (0.0, 24.0)	< 0.001
Readmission (yes)	7 (1.8%)	34 (11.0%)	< 0.001
Reoperation (yes)	6 (1.5%)	15 (4.8%)	0.011

RT: Radical trachelectomy

Abstract 22 Table 2 Tumor pathology and adjuvant treatment

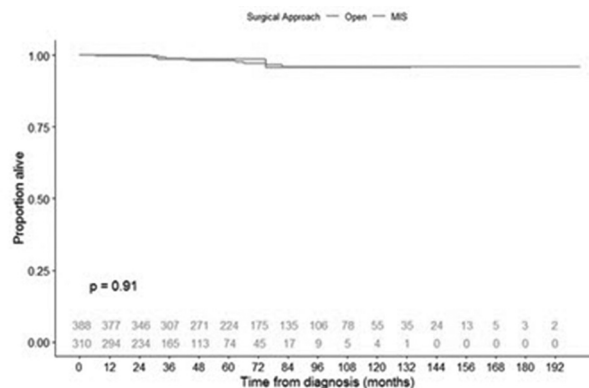
Characteristic	Open N = 388	MIS N = 310	P-value
Follow-up time (months) [median (min, max)]	51.1 (<1-179)	32.2 (<1-125)	< 0.001
Residual Disease in RT specimen (yes)	218 (56.2%)	133 (42.9%)	< 0.001
Parametrial involvement (yes)	8 (2.1%)	4 (1.3%)	0.055
Vaginal involvement (yes)	2 (0.8%)	2 (1.4%)	0.198
Positive margins (yes)	7 (2.9%)	5 (3.5%)	0.766
Nodal assessment			0.263
SLN mapping only	15 (15.2%)	29 (20.9%)	
SLN mapping and full pelvic lymphadenectomy	84 (84.8%)	110 (79.1%)	
Positive nodes (yes)	7 (7.2%)	6 (4.5%)	0.402
Adjuvant treatment (yes)	49 (12.7%)	18 (5.8%)	0.002
Chemotherapy	30 (7.7%)	3 (1.0%)	
Radiation	3 (0.8%)	5 (1.6%)	
Chemoradiation	16 (4.1%)	11 (3.5%)	
Brachytherapy	2 (0.5%)	2 (0.6%)	

RT: Radical trachelectomy SLN: sentinel lymph node



Abstract 22 Figure 1 Kaplan-Meier plot of disease-free survival with number at risk

positive margins (2.9% vs. 3.5%  $p=0.766$ ), or positive nodes (7.2% vs. 4.5%,  $p=4.02$ ). (table 2) Patients who underwent open RT had longer hospital stay (6 (1–23) vs 2 (0–24) days,  $p<0.001$ ) and received more adjuvant therapy (12.7% vs. 5.9%,  $p=0.003$ ). MIS patients had more readmissions (11.0% vs. 1.8%,  $p<0.001$ ) and reoperations (4.8% vs. 1.5%,  $p=0.01$ ). There was no difference in recurrence rate (6.4% vs. 5.7%,  $p=0.7492$ ), DFS ( $p=0.46$ ) or OS ( $p=0.91$ ) between MIS and open surgical approaches (figure 1).



Abstract 22 Figure 2 Kaplan-Meier curve of overall survival

Conclusions Surgical approach in radical trachelectomy for low-risk cervical cancer was not associated with differences in recurrence rates or survival. MIS had worse perioperative outcomes.

## IGCS19-0750

### 23 CONSERV: A PROSPECTIVE TRIAL OF CONSERVATIVE SURGERY FOR LOW-RISK EARLY STAGE CERVICAL CANCER

<sup>1</sup>K Schmeler\*, <sup>2</sup>R Pareja, <sup>3</sup>A Lopez, <sup>4</sup>JH Fregnani, <sup>5</sup>A Lopes, <sup>6</sup>M Perrotta, <sup>7</sup>A Tsunoda, <sup>8</sup>D Cantu, <sup>9</sup>JM Carvajal, <sup>10</sup>L Ramondetta, <sup>11</sup>T Manchana, <sup>12</sup>D Crotzer, <sup>13</sup>O McNally, <sup>14</sup>M Riege, <sup>15</sup>LC Turco, <sup>16</sup>J Di Guilmi, <sup>17</sup>G Rendon, <sup>18</sup>P Ramalingam, <sup>19</sup>B Fellman, <sup>20</sup>M Frumovitz, <sup>21</sup>R Coleman, <sup>22</sup>P Ramirez. <sup>1</sup>MD Anderson Cancer Center, Gynecologic Oncology, Houston, USA; <sup>2</sup>Clinica de Oncologia Astorga, Gynecologic Oncology, Medellin, Colombia; <sup>3</sup>INEN, Gynecologic Oncology, Lima, Peru; <sup>4</sup>AC Camargo, Gynecologic Oncology, Sao Paulo, Brazil; <sup>5</sup>Instituto Brasileiro de Controle do Cancer, Gynecologic Oncology, Sao Paulo, Brazil; <sup>6</sup>Hospital Italiano, Gynecologic Oncology, Buenos Aires, Argentina; <sup>7</sup>Hospital Erasto Gaertner, Gynecologic Oncology, Curitiba, Brazil; <sup>8</sup>INCAN, Gynecologic Oncology, Mexico City, Mexico; <sup>9</sup>Chulalongkorn University, Gynecologic Oncology, Bangkok, Thailand; <sup>10</sup>Nebraska Methodist Hospital, Gynecologic Oncology, Omaha, USA; <sup>11</sup>Royal Womens Hospital, Gynecologic Oncology, Melbourne, Australia; <sup>12</sup>Instituto de Ginecologia, Gynecologic Oncology, Rosario, Argentina; <sup>13</sup>Policlinico Gemelli, Gynecologic Oncology, Rome, Italy; <sup>14</sup>Hospital Britanico, Gynecologic Oncology, Buenos Aires, Argentina; <sup>15</sup>IDC, Gynecologic Oncology, Medellin, Colombia; <sup>16</sup>MD Anderson Cancer Center, Pathology, Houston, USA; <sup>17</sup>MD Anderson Cancer Center, Biostatistics, Houston, USA

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Objectives To prospectively evaluate the oncologic outcomes of conservative surgery in women with early stage cervical cancer.

Methods From 2009–2019, a prospective, multicenter study evaluated conservative surgery in 100 eligible women from 16 sites in 9 countries. Eligibility criteria included: 1) FIGO 2009 stage IA2-IB1 cervical carcinoma; 2) squamous or adenocarcinoma histology; 3) tumor size <2 cm; 4) no lymphovascular space invasion; 4) depth of invasion <10 mm; and 5) cone biopsy with negative margins (one repeat cone biopsy allowed). Women desiring future fertility underwent cervical conization and pelvic lymph node (LN) assessment consisting of sentinel LN biopsy and/or full pelvic LN dissection. Those not desiring future fertility underwent simple hysterectomy