The Best of ESGO 2017 project highlights the most relevant data presented at the world’s biggest gynecological oncology event in 2017: the 20th International Meeting of the European Society of Gynaecological Oncology.

The abstracts chosen for this presentation and discussion reflect the foremost clinical research and strategies in oncology that will impact our patient care.

The slides report the most recent relevant findings in the treatment of gynecological malignancies presented in Vienna, November 2017.
LION – Lymphadenectomy in Ovarian Neoplasms. A Prospective Randomized Ago Study Group Led Gynecologic Cancer Intergroup Trial

D. Lorusso et al.
Objectives & Methods

Objectives

To define the role of systematic pelvic and para-aortic lymphadenectomy (LNE) in patients with advanced ovarian cancer (AOC) with macroscopic complete resection and clinically negative lymph nodes (LN).

Methods

Qualified centers (12 adequate surgeries in the preceding 12 months; at least 20 pelvic/10 PA nodes)

- 647 FIGO IIB-IV patients with epithelial ovarian, fallopian tube or primary peritoneal cancer
- Macroscopic complete resection
- Absence of "bulky" nodes

Randomisation

LNE (≥ 20 pelvic and 10 para-aortic lymph nodes removed (n=323)

No LNE (n=324)
## Results

<table>
<thead>
<tr>
<th>Characteristics of surgery</th>
<th>LNE (%)</th>
<th>No LNE (%)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diaphragm stripping</td>
<td>173 (53.6)</td>
<td>196 (60.5)</td>
<td></td>
</tr>
<tr>
<td>Gastrointestinal tract resection</td>
<td>169 (52.3)</td>
<td>167 (51.5)</td>
<td>0.84</td>
</tr>
<tr>
<td>Splenectomy</td>
<td>62 (19.2)</td>
<td>56 (17.3)</td>
<td>0.53</td>
</tr>
<tr>
<td>Portahepatis/lesser omentum</td>
<td>61 (18.9)</td>
<td>69 (21.3)</td>
<td>0.44</td>
</tr>
<tr>
<td>Complete resection</td>
<td>321 (99.4)</td>
<td>322 (99.4)</td>
<td>0.99</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristics of lymphadenectomy</th>
<th>LNE (%)</th>
<th>No LNE (%)</th>
<th>Difference</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resected LN total</td>
<td>57 (45-73)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Para-aortic LN</td>
<td>22 (16-33)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pelvic LN</td>
<td>35 (26-43)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lymph node metastases</td>
<td>180 (55.7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration [min]</td>
<td>340 (270-420)</td>
<td>280 (210-360)</td>
<td>+1 hour</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Intensive Care Unit</td>
<td>250 (77.6)</td>
<td>223 (69.4)</td>
<td>+8%</td>
<td>0.01</td>
</tr>
</tbody>
</table>
Results (2)

- post-op platinum-taxane based chemotherapy was given in 85% of the patients in the no-LNE arm and 80% in the LNE arm

- median PFS 26 months in both arms (HR 1.11, 95%CI 0.92-1.34 p=0.30)
Conclusions

- LION study data do not support systematic LNE of clinically negative LN in patients with AOC receiving macroscopic complete resection.

- LNE of clinical negative LN in patients with AOC and complete resection should be omitted.
Hyperthermic Intraperitoneal Chemotherapy (HIPEC) for Ovarian Cancer

W.J. Van Driel et al.

ESGO7-1447
Objectives & Methods

Objectives

- To assess whether the addition of intraperitoneal chemotherapy under hyperthermic conditions (HIPEC) to interval debulking surgery (IDS) would improve outcome among patients receiving neo-adjuvant chemotherapy for stage III epithelial ovarian cancer (EOC); to assess safety profile and Quality of life (QoL)

Methods

- FIGO stage III EOC,
- ineligible for primary debulking
- 3 cycles of carboplatin AUC 6/paclitaxel 175 mg/mq
- at least stable disease
- complete or optimal cytoreduction at IDS

Randomization 1:1

IDS + HIPEC (n=122)
3 cycles of carboplatin AUC6 /paclitaxel 175 mg/mq

IDS (n=123)

Prim. Endpoint
Recurrence free survival (RFS)

Sec. Endpoints
Overall survival (OS), Safety, QoL

HIPEC: open technique, 40-41°C, 90 minutes perfusion, cisplatinum 100 mg/mq, sodium thiosulfate IV to protect renal function
Results (1)

- efficacy (RFS and Median OS)
Results (2)

- most common adverse events
- health related Quality of Life
Conclusions

- Adding HIPEC to complete or optimal IDS for FIGO stage III ovarian cancer prolongs RFS and 5yr OS, with no severe toxicity or worsening of QoL.
ARIEL 3: Phase 3, Randomised, Double-Blinded Study of Rucaparib Versus Placebo Following Response to Platinum-Based Chemotherapy for Recurrent Ovarian Carcinoma

JA. Ledermann et al.
Objectives & Methods

Objectives
To assess rucaparib (PARP inhibitor) versus placebo after response to second-line or later platinum-based chemotherapy in patients with high-grade, recurrent, platinum-sensitive ovarian carcinoma (OC)

Methods (1)

- Stratification
  - HRR status by NGS mutation analysis
    - BRCA1 or BRCA2
    - Non-BRCA HRR gene
    - None of the above
  - Response to recent platinum
    - CR
    - PR
  - Progression-free interval after penultimate platinum
    - 6 to ≤12 months
    - >12 months

- 564 patients with platinum-sensitive, high-grade serous or endometrioid ovarian, primary peritoneal, or fallopian tube carcinoma
- ≥ two previous platinum-based chemotherapy regimens
- achieved complete (CR) or partial response (PR) to most recent platinum-based chemotherapy
- CA-125 within normal range
- no prior PARP inhibitors

randomisation

2:1

rucaparib
600 mg twice daily
(n=375)

placebo
(n=189)
Methods (2)

- BRCA mutant (deleterious germline or somatic BRCA mutation) (130, rucaparib; 66, placebo)
- Homologous recombination deficient (BRCA mutant or BRCA wild-type/LOH high) (236, rucaparib; 118, placebo)
- Intent-to-treat population (375, rucaparib; 189, placebo)

If significant

If significant
Results (1)

- investigator-assessed progression-free survival

**HRD**

- Median (months) 95% CI
  - Rucaparib (n=236) 13.6 10.9–16.2
  - Placebo (n=118) 5.4 5.1–5.6

  HR, 0.32; 95% CI, 0.24–0.42; P<0.0001

**BRCA mutant**

- Median (months) 95% CI
  - Rucaparib (n=130) 10.6 13.4–22.9
  - Placebo (n=66) 5.4 3.4–6.7

  HR, 0.23; 95% CI, 0.16–0.34; P<0.0001

**ITT**

- Median (months) 95% CI
  - Rucaparib (n=375) 10.8 8.3–11.4
  - Placebo (n=189) 5.4 5.3–5.5

  HR, 0.36; 95% CI, 0.30–0.45; P<0.0001
Results (2)

- treatment-emergent adverse events of any grade reported in ≥15% of patient in either arm
Conclusions

- Rucaparib maintenance treatment significantly improved PFS vs placebo in all groups.

- Several patients with measurable residual disease at baseline had further reduction in tumour burden with rucaparib maintenance treatment.

- The most common side effects were gastrointestinal (nausea and vomiting), asthenia, and anemia.
Quality of Life with Weekly, Dose-Dense Versus Standard Chemotherapy for Ovarian Cancer in The ICON8 Study

Blagden et al.
Objectives

In the ICON8 study, even though a weekly dose-dense chemotherapy (CT) could be delivered successfully as first-line treatment in patients with epithelial ovarian cancer (EOC) without a substantial increase of toxicity, PFS was not significantly improved compared to standard 3-weekly CT.

The aim

The aim of the present analysis was to assess the quality of life in the three arms of the study.
Methods

- FIGO IC-IV patients with epithelial ovarian, fallopian tube or primary peritoneal cancer
- after immediate primary surgery or planned to receive NACT plus delayed primary surgery

Randomisation 1:1:1

Arm 1
- Carboplatin AUC 5
- Paclitaxel 175mg/m² q3w

Arm 2
- Carboplatin AUC 5
- Paclitaxel 80 mg/m² q1w

Arm 1
- Carboplatin AUC 2
- Paclitaxel 80 mg/m² q1w
Results (1)

At 9 months, there was no significant difference between arms in: global QOL, emotional function, social function and fatigue. However, weekly treatment was associated with inferior QoL during treatment with fatigue and worse long lasting peripheral neuropathy.

Results of QQL Analysis Primary Endpoint: Global QQL

Global QOL improved and was similar in all 3 arms at the 9 month. (p=0.09, p=0.62, arms 2 vs 1 and 3 vs 1 respectively)

Improvement in Global QOL occurred earlier during treatment (p=0.03, p=0.003, arms 2 vs 1 and 3 vs 1 respectively)
Results (2)

At 9 months, there was no significant difference between arms in: global QOL, emotional function, social function and fatigue. However, weekly treatment was associated with inferior QoL during treatment with fatigue and worse long lasting peripheral neuropathy.

Results of Secondary Endpoint: Peripheral Neuropathy

During the treatment period neuropathy was more severe in 3-weekly arm (arm 1) \((p<0.001, \ p=0.02, \text{ arms } 2 \text{ vs } 1 \text{ and } 3 \text{ vs } 1 \text{ respectively})\)

Post-treatment, peripheral neuropathy was worse in both weekly arms, remaining so at 9 months (mean neuropathy scores 27.4, 34.2, 31.3 in arms 1,2,3 respectively).
Conclusions

- The QKI results do not support the use of weekly paclitaxel in the upfront management of EOC.
Cisplatin Chemo-Radiations Versus Radiation in FIGO Stage IIIB Squamous Cell Carcinoma of The Uterine Cervix – A Phase III Randomised Trial

U. Mahantshetty et al.
Objectives & Methods

Objectives

▪ To evaluate the role of concomitant chemo-radiation (CHRTH) versus radiation (RTH) in FIGO stage IIIB squamous cell cervical carcinoma.

Methods

▪ Accrual period; 7/2003 – 9/2011 ; median follow-up: 88 months (61-113)
▪ >90% treatment compliance

• FIGO Stage IIIB
• squamous carcinoma histology
• > 18 and < 65 years
• WHO performance status : 0 or 1
• normal renal functions

Concomitant chemo-radiation
(n=424)
(Cisplatin weekly 40 mg/m2 for 5 cycles at least)

Definitive radiation
(n=426)
(External Beam: 50Gy/25)
Brachytherapy: LDR (25-30 Gy-A point 1) or HDR (7 Gy to A point x 3)

Exclusion Criteria
• Bilateral hydronephrosis
• HIV positive
• medical renal disease
• gross PA nodes on imaging
Results

Disease-free survival at 5 years
- Chemo-radiation arm: 52.3% (95% CI, 52.25 – 52.35)
- Radiation Arm: 43.8% (95% CI, 43.75 – 43.85)

Acute gastrointestinal, late recto-sigmoid and hematological complications: CHRHH > RTH

Overall survival at 5 years
- Chemo-radiation arm: 54% (95% CI, 53.95 – 54.05)
- Radiation Arm: 46% (95% CI, 45.95 – 46.05)
Conclusions

- Concomitant weekly cisplatin based chemo-radiation should be the standard of care in FIGO stage IIIB squamous cell cervical carcinoma (absolute benefit of 8.5 % in DFS and 8% in OS).
Decisional Value of Pretherapeutic Laparoscopic Extraperitoneal Ilio-Paraaortic (LE-PALND) Versus PET-CT in Locally Advances Cervical Carcinomas

E. Leblanc et al.
Objectives & Methods

Objectives

▪ There is a need of an accurate methodology to decide on the indication and upper border of the radiation field. Imaging techniques (MRI, CT, PET-CT) are not helpful for low volume metastasis.

The aim of the study was:

▪ to compare the results of extraperitoneal para-aortic bilateral lymph node dissection (LE-PALND) to PET-CT in locally advanced cervical carcinoma (LACC, FIGO stage IB2-IVA) to identify the indications of radiation therapy.

Methods

▪ 300 LACC patients enrolled prospectively patients with no nodal involvement on imaging (MRI and/or CTscan)
▪ PET-CT scan and afterwards an ilio-infrarenal EL-PALND
Results (1)

- 300 patients with totally extra-uterine negative PET-CT

<table>
<thead>
<tr>
<th>PET-scan status</th>
<th>Pathological node status</th>
<th>n</th>
<th>PA pN1</th>
<th>Morbidity of surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally negative except for the tumor</td>
<td></td>
<td>213</td>
<td>18 (8.4%)</td>
<td>35 (16.8%) (27 grade 3)</td>
</tr>
<tr>
<td>Hot spots at external iliac level only</td>
<td></td>
<td>58</td>
<td>15 (25.8%)</td>
<td>4 (6.9%) (2 grade 3)</td>
</tr>
<tr>
<td>Hot spots at common iliac +/- paraaortic level</td>
<td></td>
<td>26</td>
<td>19 (73%)</td>
<td>4 (15.3%) (all grade 3)</td>
</tr>
<tr>
<td>Hot spots at any node level+ suspicious distant level</td>
<td></td>
<td>3</td>
<td>3 (100%)</td>
<td>0</td>
</tr>
</tbody>
</table>

pN1 was detected in 13.5% patients with FIGO Stage IB2, 19% with IIA2, 18.7% with IIB, 27.7% with IIIA+B, and 50% patients with FIGO IVA (all except 7 patients had less than 5mm metastases)
Results (2)

- Laparoscopic staging altered LACC patients’ management in 19% cases.

- Overall morbidity of LE-PALND was 30% patients and 50% of these were lymphocysts.

- Indications might be restricted to patients with no hotspots above external iliac vessel level.

- 80% of grade 3 complications consisted of lymphocysts which were treated with CT-guided puncture/drainage without delaying further treatment.
Conclusions

- EL-PALND seems to be a good option to tailor CRT fields especially in case of negative PET-CT beyond the level of external iliac vessels.
Comparison of MRI, PET-CT, and Frozen Biopsy in Evaluation of Lymph Node Status Before Fertility-Sparing Radical Trachelectomy in Early Stage Cervical Cancer

GW. Lee et al.
Objectives & Methods

Objectives
- To compare the accuracy of MRI, PET/CT and frozen biopsy for the evaluation of the lymph node status before fertility-sparing radical trachelectomy in early stage cervical cancer.

Methods

135 pts FIGO IA-IIA1 stage cervical cancer treated with fertility sparing laparoscopic or robotic trachelectomy

pelvic ± paraaortic lymphadenectomy + frozen section before trachelectomy
Results

19 patients (14%) had positive lymph nodes

- significant difference in sensitivity, (72% vs 36.8% P=0.004) and accuracy (84% vs 75% p= 0.023) of PET-CT vs MRI

- significant difference in sensitivity (100% vs. 72.2%, P=0.026), specificity (100% vs. 85.8%, P<0.001), accuracy (100% vs. 83.9%, P<0.001) of frozen biopsy versus PET-CT
Conclusions

- Frozen biopsy is superior to MRI and PET/CT in the evaluation of lymph node status before fertility-sparing radical trachelectomy in early stage cervical cancer.
Efficacy and Immunogenicity of the 9-Valent HPV Vaccine: Final Analyses of A Randomised, Double-Blinded Trial With Up To 6 Years of Follow-Up

E. Joura et al.
Objectives & Methods

Objectives

- The 9-valent human papillomavirus (9vHPV) vaccine targets the four HPV types (HPV6/11/16/18) covered by the quadrivalent HPV (qHPV) vaccine, with the addition of the 5 oncogenic types (HPV31/33/45/52/58).

The Aim of the study was:

- to report efficacy and immunogenicity of 9vHPV vaccine in a clinical trial in young women aged 16-26 years.

Methods

14,215 participants

randomization

3 doses 9vHPVe

3 doses qHPV

patients tested for
cervical and external genital swabs for cytology and HPV-DNA test every 6 months (protocol-mandated triage if abnormal Pap test)

if abnormal tissue samples after biopsy and loop electrosurgical conization procedure tested for HPV-DNA

serum antibody responses to the nine vaccine HPV types were assessed
Results

Risk reduction percent for HPV31/33/45/52/58-related outcomes for:

- CIN 3 or worse was 100.0% (39.4, 100)
- cervical, vulvar, and vaginal disease (any grade) was 94.4% (94.6, 97.1)
- 6-month persistent infection was 96.0% (94.6, 97.1)
- cervical cytological abnormalities (HSIL or worse) was 95.2% (73.9, 99.8)
- cervical definitive therapy (LEEP) was 90.2 (75.0, 96.8)

Incidences of HPV6/11/16/18-related infection, cytological abnormalities, disease, and definitive therapy were similar in both vaccine groups.
Conclusions

- The 9vHPV vaccine prevents HPV31/33/45/52/58-related infection, disease and provides a protection similar to that of HPV6/11/16/18 as the qHPV vaccine. Vaccine efficacy was sustained for up to 6 years.
HPV Therapeutic Vaccine, Is It Clinically Useful?

J. Park et al.
Objectives

GX-188E is a novel, dendritic cell targeting, DNA therapeutic vaccine encoding for HPV types 16/18- E6/E7 antigens. The efficacy of the vaccine has been reported in a previous phase I trial where seven out of nine patients displayed complete regression of their cervical intraepithelial neoplasia 3 (CIN3) and viral clearance after GX-188E administration within 36 weeks of follow up.

The Aim of this open-label, multicenter phase 2 trial was to compare the efficacy of two regimens of GX 188E
Methods

CIN3 confirmed by biopsy and HPV 16 and/or 18 infection confirmed by PCR (n=68)

Randomization 1:1

1mg GX-188E at weeks 0,4 and 12

4mg GX-188E at weeks 0,4 and 12

Prim. Endpoint: histological regression of cervical lesions to CIN1 or less
Results

- 51.5% patients regressed to CIN1 or less on histology at week 20 and 59.4% at week 36
- Patients with small lesions (<50% of cervix by colposcopic inspection) were more likely to have histological regression (78.8%) as compared to patients with lesions >50% (38.7%)
- 1 mg dosing group demonstrated a higher (but not significantly) histological regression rate at week 36 (66.7%) compared to the 4 mg dosing group (52.9%)
- Induced HPV-specific IFNγELISpot responses in 93% of subjects
- Most common adverse events: injection site reactions
Conclusions

- GX-188E vaccine shows promising activity and therapeutical potential for treatment of CIN3
Prognostic Value of Lymph Node Ratio and Number of Positive Inguinal Nodes in Patients with Vulvar Cancer

S. Polterauer et al.
Objectives & Methods

Objectives

▪ To estimate the prognostic significance of lymph node ratio (LNR) (LN) in vulvar cancer patients

\[
\text{Lymph node ratio} = \frac{\text{No. of involved Lymph Nodes}}{\text{No. of resected Lymph Nodes}}
\]

Methods

▪ international multicenter retrospective study (VULCAN)
▪ 745 patients diagnosed with vulvar cancer treated with inguinal lymphadenectomy
▪ LNR was calculated and compared with clinicopathologic parameters
▪ stratification of patients according to LNR ratio risk groups
Results

- high LNR was associated with larger tumor size and higher tumor grade
- patients with LNRs 0% (N0), >0<20%, and >20% had 5-year overall survival (OS) rates of 90.9%, 70.7%, and 61.8%, respectively
- LNR and FIGO stage were associated with OS
- patients with a LNR>20% but not LNR > 0< 20% benefit from adjuvant radiotherapy
LNR is an independent prognostic parameter in vulvar cancer. LNR allows for more accurate prognostic stratification of patients than number of positive nodes. LNR seems useful to select appropriate candidates for adjuvant radiation.
Oncological Management and Pregnancy Outcomes in Women Diagnosed with Cancer During Pregnancy: A 20-Year International Cohort Study of 1170 Patients

De Haan et al.
Objectives & Methods

Objectives
▪ To analyze the oncological management and the obstetrical and neonatal outcomes of patients treated in the last 20 years by members of the International Network on Cancer, Infertility and Pregnancy (INCIP), and to identify risk factors for adverse obstetrical or neonatal outcome

Methods
Data on oncological, obstetrical and neonatal outcome for patients diagnosed between 1996 and 2016 with primary cancer during pregnancy selected from the INCIP online registration database.

Primary outcome measures:
▪ Preterm pre-labour ruptur of membranes (PPROM) and/or preterm contractions.
▪ Small-for-gestational-age (SGA).
▪ Neonatal intensive care unit (NICU) admission.
▪ Changes in oncological management over 20 years
▪ Changes in obstetrical management over 20 years
Results (1)

- 1170 patients / 37 centers / 16 countries, including 955 patients with a singleton pregnancy resulting in live births

- Every five years:
  - 10% more patients were treated during pregnancy (31% more received chemotherapy)
  - 4% more live births, 7% fewer preterm live births, 9% less iatrogenic preterm deliveries
Results (2)

- Congenital malformations occurred in 4% of newborns (2% minor and 2% major malformations)

- Odds ratio of chemotherapy exposure was:
  - 2.02 (95% CI 1.19 to 3.40), for preterm pre-labour rupture of membranes and/or contractions
  - 2.37 (95% CI 1.31-4.28) for NICU admission
  - 1.83 (95% CI 1.21 to 2.78) for small-for-gestational-age (mainly platinum-based and alkylating chemotherapy appeared to increase the incidence).
Conclusions

▪ The referral of pregnant cancer patients who need chemotherapeutic treatment to centers with obstetrical high care units is recommended.
Expression of L1Cam (cell adhesion molecule) in Curettage and High L1Cam Level in preoperative Blood Samples Predicts Lymph Node Metastases and Poor Outcome in Endometrial Cancer Patients

IL. Tangen et al.

(ESGO7-0250)
Objectives & Methods

Objectives

- Several studies have identified L1CAM as a strong prognostic marker in endometrial cancer.

The Aim of the study was:

- to investigate L1CAM as predictive marker for lymph node metastases in curettage specimens and preoperative plasma samples

Methods

- Association between L1CAM level and clinicopathologic variables including lymph node status and survival was investigated.

1134 patients with endometrial cancer

immunohistochemical staining of L1CAM in curettage specimens (1134 patients)

L1CAM level in preoperative plasma samples evaluated with ELISA (372 patients)
Results

- L1CAM expression in curettage specimen was significantly correlated to L1CAM level in corresponding hysterectomy specimen.

- L1CAM upregulation in curettage specimen and preoperative plasma samples was significantly associated with features of aggressive disease and poor outcome.

- L1CAM was an independent predictor of lymph node metastases.
Conclusions

- Preoperative evaluation of L1CAM levels, both in curettage or plasma samples, predicts lymph node metastases and adds valuable information on patient prognosis.
Sensitivity of Non-Invasive Prenatal for Cancer Detection and Treatment Monitoring in Pregnant Women

L. Lenaerts

ESGO7-0220
Objectives

Identifying foetal and maternal chromosomal imbalances with a massive parallel sequencing-based analysis pipeline for non-invasive prenatal testing (NIPT) has been documented.

The Aim of the study was:

- to assess the sensitivity of routine NIPT to detect cancer and monitor cancer treatment in pregnant women.
Methods

- 23 women diagnosed with cancer during pregnancy were included in the study.
- Plasma samples analysed for genomic imbalance.
- Patients detected with a genomic imbalance were assessed for treatment response by consecutive blood samples.

(genome wide NIPT analysis was done by the blood sample, cell-free DNA, library preparation, sequencing Illumina HiSeq 2500, aligning of reads, and GR and Z score.)
Results

- cell free DNA of 9/23 cases showed chromosomal abnormalities (segmental or genome wide)

- sensitivity of cancer detection was highest for hematological (67%) and breast cancers (40%)

- tumor biopsy results for genomic imbalance profiling was similar for cell-free DNA.

- genomic imbalance profiling of cell free DNA was useful for following treatment response.
Conclusions

- Genomic imbalance profiling of circulating cell free DNA is a promising method to detect and monitor cancer in pregnancy.

- It could be helpful for presymptomatic detection of cancer in pregnant women (early cancer treatment, screening patients at risk before conception) and monitoring of cancer treatment/relapse.
Refinement of High-Risk Endometrial-Cancer (HR-EC) Classification Using DNA Damage Response (DDR) Biomarkers: A Transportec Initiative

A. AUGUSTE ET AL.

(ESGO7-1287)
Objectives & Methods

Objectives
The TransPORTEC consortium previously classified high-risk endometrial cancer (HR-EC) into 4 molecular subtypes POLE, MSI, P53 mutated (P53m+) and no specific molecular profile (NSMP).

The aim of the current study was to evaluate whether:
- HR-EC (NSMP & P53) demonstrate deficiencies in DNA damage response (DDR)
- DDR markers have prognostic value
- DDR markers have predictive value for new therapeutical approaches

Methods
Retrospective analysis, 116 clinically annotated patients studied for DDR profile. DDR biomarkers (g-H2AX, RAD51, DNA-PK or FANCD2), and PARP were retrospectively evaluated by IHC.
Results

- p53 mutated tumors using the "error-prone" NHEJ had significantly worst prognosis
- Molecular sub-group and immune infiltration
Conclusions

The prognostic classification of HR-EC was refined into 5 distinct subgroups (DFS from best to worst):

"POLE/MSI" > "NSMP with no DNA damage" > "P53m+/NHEJ-" > "NSMP with high DNA damage" > "P53m+/NHEJ+ ".

DDR biomarkers could be also used to select HR-EC patients for immunotherapy or DDR-targeted therapy.
Perioperative Positioning Management in Gynecologic Cancer Surgery: A National NOGGO-AGO Intergroup Survey

JK. Wagner et al.
Objectives & Methods

Objectives
The analysis of the perioperative positioning management in gynaecologic-oncological surgery in Germany and analysis of the implementation of current guidelines into daily clinical practice.

Methods
A multiple-choice questionnaire made up of 60 questions sent to all 633 gynecological departments in Germany (focus on the pre- and postoperative management, on the quality management and two fictional case examples)
Results (1)

- 188 of 633 departments participated in the survey (June-September 2016)
- 92% included information of positioning injuries into the written informed consent

<table>
<thead>
<tr>
<th>Specific content of informed consent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pressure ulcers</td>
</tr>
<tr>
<td>nerve lesions</td>
</tr>
<tr>
<td>compartment syndrome</td>
</tr>
<tr>
<td>dermal injuries</td>
</tr>
<tr>
<td>thermal injuries</td>
</tr>
<tr>
<td>neuropathies</td>
</tr>
<tr>
<td>motoric injuries</td>
</tr>
<tr>
<td>hypothermia</td>
</tr>
</tbody>
</table>
Results (2)

- Positioning-related complications during the last 12 months (%)

- Standards of intraoperative positioning and its documentation exist in over 90%
- Patient positioning is part of the team time-out in over 66%
- Rate of positioning-related complications is not related to:
  - department size
  - knowledge of the current guideline on positioning
Conclusions

- Despite the high awareness of the problem, complication rate still seems to be too high.

- Systematic training and education are highly needed.
Surgical Metformin in Uterine Malignancy – Results of The Premium Randomised Controlled Trial

S. Kitson et al.
Objectives & Methods

Objectives
- to evaluate the effect of metformin in women with atypical hyperplasia or endometrioid endometrial cancer at a multi-center, double blind, placebo-controlled trial.

Methods
- Randomization 1:1
- Placebo OD for 3 days then BD (n=43)
  - median duration of treatment for metformin arm vs placebo arm: 20.5 vs 21.5 days, respectively.
  - primary outcome: immunohistochemical expression of Ki-67
  - secondary outcome: investigation of the potential mechanisms of metformin
- Metformin 850mg OD for 3 days then 850mg BD (n=45)
- Hysterectomy (day 5-35)
- endometrioid endometrial tumor (95%)
- atypical endometrial hyperplasia (5%) (n=564)
Results

- Nausea, vomiting, diarrhoea and anorexia significantly higher in metformin arm
- Metformin treatment had no effect on Ki-67 expression
- No effect of baseline insulin resistance and HbA1C level on metformin response
- Women with a BMI <30 kg/m² had higher decrease in Ki-67 expression than the placebo group (8.3% vs 5.5%)
Conclusions

- There is no overall reduction in endometrial cancer cell proliferation with short term metformin treatment.
- Patients with a BMI <30 kg/m² may have a beneficial effect.
List of the studies


- EXPRESSION OF L1CAM IN CURETTAGE AND HIGH L1CAM LEVEL IN PREOPERATIVE BLOOD SAMPLES PREDICTS LYMPH NODE METASTASES AND POOR OUTCOME IN ENDOMETRIAL CANCER PATIENTS - I.L. Tangen, R. Kopperud, N. Visser, A. Staff, S. Tingulstad, J. Marickiwicz, F. Amant, L. Bjørge, P. Jippenborgh, H. Salvesen, H. Werner, J. Tovvik, C. Krakstad


- DECISIONAL VALUE OF PRETHERAPEUTIC LAPAROSCOPIC EXTRAPERITONEAL Ilio-PARAAORTIC (EL-PALND) VERSUS PET-CT IN LOCALLY ADVANCED CERVICAL CARCINOMAS (LACC) - E. Leblanc, F. Narducci, D. Hudry, L. bresson, Y. Borghesi, S. Taieb, A.S. Lemaire, A. Lesoin, H. Gauthier

- THERAPEUTIC HPV VACCINE-IS IT CLINICALLY USEFUL? - J. Park, S. Hur, K. Lee, J. Kim, Y. Choi, S. Lee

- LONG-TERM EFFICACY AND IMMUNOGENICITY OF THE 9-VALENT HUMAN PAPILLOMAVIRUS VACCINE: FINAL ANALYSES OF A DOUBLE-BLIND, RANDOMIZED CLINICAL STUDY - E. Joura


- DECISIONAL VALUE OF PRETHERAPEUTIC LAPAROSCOPIC EXTRAPERITONEAL Ilio-PARAAORTIC (EL-PALND) VERSUS PET-CT IN LOCALLY ADVANCED CERVICAL CARCINOMAS (LACC) - E. Leblanc, F. Narducci, D. Hudry, L. bresson, Y. Borghesi, S. Taieb, A.S. Lemaire, A. Lesoin, H. Gauthier

- ONCOLOGICAL MANAGEMENT AND PREGNANCY OUTCOMES IN WOMEN DIAGNOSED WITH CANCER DURING PREGNANCY: A 20-YEAR INTERNATIONAL COHORT STUDY OF 1170 PATIENTS - J. de Haan, M. Verheecke, K. Van Calster, A. Dean, O. Cibula

- SENSITIVITY OF NON-INVASIVE PRENATAL FOR CANCER DETECTION AND TREATMENT MONITORING IN PREGNANT WOMEN - L. Lenaerts, J. Vermeech, M. Verheecke, L. Dehaspe, N. Brison, F. Amant

- HYPERTHERMIC INTRAABDOMINAL CHEMOTHERAPY (HIPEC) FOR OVARIAN CANCER: A 20-YEAR INTERNATIONAL COHORT STUDY OF 1170 PATIENTS - J. de Haan, M. Verheecke, K. Van Calster, A. Dean, O. Cibula


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