

maintained PIPAC database of Lyon Sud university hospital. All patients diagnosed with nonresectable PM who became resectable after PIPAC were included. Outcome criteria were adverse events during PIPAC cycles according to Common Terminology Criteria for Adverse Events (CTCAE) version 4.0., Secondary CRS and HIPEC.

**Results:** Four hundred thirty seven PIPAC were applied in 146 consecutive patients between December 2015 and March 2018: among them 26 patients (17.8 %) underwent 76 PIPAC and were scheduled for secondary CRS and HIPEC. PM was from colorectal, gastric, ovarian, malignant mesothelioma, or other origins in 2, 13, 7, 3 and 1 patients, respectively. Nineteen (73%) female. At the time of the first PIPAC, median age was 58.6 years (32–76.3). Median PCI was 14.5 (1–39). Seven (27%) patients underwent more than 2 lines of preoperative chemotherapy. All patients had systemic chemotherapy alternating with PIPAC. Median consecutive PIPAC cycles were 3 (1–8). Overall complications occurred for 3 PIPAC (4%) and there was no major complication (CTCAE III, IV). Finally, Secondary complete CRS and HIPEC were achieved in 21 patients (14.4%) and for 5 patients CRS were not possible. Among Patients who underwent CRS and HIPEC 15 patients (76.2%) alive without recurrence, 2 patients (9.5%) alive with recurrence and 3 patients (14.3%) died.

**Conclusion:** Complete CRS and HIPEC can be achieved in selected patient with nonresectable PM after repeated PIPAC. Further prospective study is needed to evaluate this indication.

**Conflict of interest:** No conflict of interest.

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### A UNICANCER PHASE III TRIAL OF HYPERTHERMIC INTRA-PERITONEAL CHEMOTHERAPY (HIPEC) FOR COLORECTAL PERITONEAL CARCINOMATOSIS. PRODIGE 7.

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**Background:** Promising results have been obtained during the last decade using cytoreductive surgery (CRS) plus HIPEC for selected patients with colorectal PC who are amenable to complete macroscopic resection. This is the first trial to evaluate the specific role of HIPEC, after CRS, for the treatment of PC of colorectal origin.

**Methods:** Prodigé 7 is a randomized phase III, multicenter trial. Patients with histologically proven and isolated PC, peritoneal cancer index (PCI) ≤25 were eligible. Randomization (1:1) was stratified by center, complete macroscopic resection (R0/1 vs R2), and neoadjuvant systemic chemotherapy. Patients were treated with CRS plus HIPEC with oxaliplatin or CRS alone, in association with systemic chemotherapy. The primary endpoint was the overall survival (OS). Secondary endpoints were relapse-free survival (RFS) and toxicity. 264 patients were required to show a gain in median OS from 30 to 48 months (HR=0.625) with a two-sided  $\alpha=0.046$  and 80% power.

**Results:** 265 patients from 17 centers were included between February 2008 and January 2014: 132 in Arm without HIPEC and 133 in Arm with HIPEC. The median age was 60 years (range: 30–74). Baseline characteristics were well balanced. The overall post-operative mortality rate was 1.5% and was not different between the two arms. The morbidity rates did not differ statistically at 30 days. At 60 days, the grade 3–5 morbidity rate was significantly higher with HIPEC (24.1% vs. 13.6%,  $p=0.030$ ). After a median follow up of 63.8 months (95% CI: 58.9–69.8), the median OS was 41.2 months (95% CI 35.1–49.7) in the non- HIPEC Arm and 41.7 months (95% CI: 36.2–52.8) in the HIPEC Arm, HR=1.00 (95% CI: 0.73– 1.37)  $p=0.995$ . The median RFS was 11.1 months (95% CI: 9–12.7) in non-HIPEC

Arm and 13.1 months (95% CI: 12.1–15.7) in HIPEC Arm, HR=0.90 (95% CI: 0.69–1.90) ( $p=0.486$ ), whilst the 1-year RFS rates were 46.1% in non-HIPEC Arm and 59 % in the HIPEC Arm. In sub-group analysis, OS and RFS survival rates were significantly higher among the patients with medium range PCI (>11 ≥15), the median OS was 32.7 months (95% CI: 23.5–38.9) in the non-HIPEC Arm and 41.6 months (95% CI: 36.1–not reach) in the HIPEC Arm, , HR=0.437 95%CI (0.21–0.90),  $p=0.0209$

**Conclusions:** The therapeutic curative management of PC from colorectal cancer by CRS shows satisfactory survival results. While the addition of HIPEC with oxaliplatin does not influence the OS. Further studies are needed to determine whether HIPEC could remain beneficial for mid-range PCI patients.

**Conflict of interest:** No conflict of interest.

## Scientific Symposium

### EURECCA

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### VARIABILITY IN BREAST CANCER SURGERY TRAINING ACROSS EUROPE: AN ESSO-EUSOMA INTERNATIONAL SURVEY

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**Background.** There is a lack of standardization of training in breast cancer surgery across Europe, with variation in training duration, oncoplastic skills acquisition and variable quality standards. Breast cancer outcomes and access to complex surgical techniques vary widely across Europe. The aim of this survey was to assess current European training variation in breast cancer surgery. This will inform the development of harmonized european structured training programs to standardized surgical management of breast cancer patients.

**Material and methods.** General breast surgeons, surgical oncologists, gynecologist, and plastic surgeons were invited to participate in this bespoke on-line survey. Nineteen questions were asked related to breast surgery training.

**Results.** A bespoke questionnaire was sent out to breast practicing surgeons in European countries. 651 surgeons (383 (59%) general surgeons, 138 (21%) gynecologists, 128 (20%) surgical oncologists, 31 (4.7%) plastic surgeons and 11 (1.6%). Response rates were highest from Germany, Spain, UK, Italy, Portugal, Sweden and Turkey.

By age, 63% responders were between 40–60 y/o and 58% were males. Four hundred and sixty-eight (72%) physicians devoted between 50% –100% to treat breast cancer. 45% worked in a community/University hospital within a Breast Unit.

Regarding the question about additional breast surgery training after the specialization, 20% had an accredited breast fellowship, 30% in a Breast Unit as a trainee, 30% in a Breast Unit as a consultant, 21% had done additional courses or a master, diploma degree and 8% had not done any additional training. For those with additional training, 70% had additional breast surgery training for more than a year and 77% had additional training in oncoplastic procedures.

Three hundred and eighty three (59%) perform breast reconstructions, with 41% performing implant-based reconstruction and 47% both implant plus autologous without microsurgery.

More than 150 cases were treated in 61% of the Breast Units, while 26% of the responders treat > 120 new primary cases per surgeon per year, 24% between 50–75 and 22% less than 50.

**Conclusion.** There is a great variability in breast cancer surgery training in Europe, with only 1/3 of responders having additional certified breast