

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.

22

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

F. Quenet¹, D. Elias², L. Roca³, D. Goéré², L. Ghouti⁴, M. Pocard⁵, O. Facy⁶, C. Arvieux⁷, G. Lorimier⁸, D. Pezet⁹, F. Marchal¹⁰, V. Loi¹¹, P. Meeus¹², H. De Forges¹³, T. Stanbury¹⁴, J. Paineau¹⁵, O. Glehen¹⁶. On behalf of Prodigé Group¹ ICM Montpellier, Surgical Oncology, Montpellier, France; ²Gustave Roussy, Surgical Oncology, Villejuif, France; ³ICM Montpellier, Biostatistics, Montpellier, France; ⁴CHU Purpan, Digestive Surgery, Toulouse, France; ⁵CHU Lariboisière, Digestive Surgery, Paris, France; ⁶CHU du bocage, Digestive Surgery, Dijon, France; ⁷CHU Grenoble, digestive surgery, Grenoble, France; ⁸ICO Angers, Surgical Oncology, Angers, France; ⁹CHU Hotel Dieu, Digestive Surgery, Clermont-Ferrand, France; ¹⁰Centre Alexis Vautrin, Surgical Oncology, Nancy, France; ¹¹CHU Tenon, Digestive Surgery, Paris, France; ¹²CLB Lyon, Surgical Oncology, Lyon, France; ¹³ICM Montpellier, Clinical Research, Montpellier, France; ¹⁴Unicancer, Unicancer R&D, Paris, France; ¹⁵ICO Nantes, Surgical Oncology, Nantes, France; ¹⁶CHU Lyon Sud, Digestive Surgery, Pierre Bénite, France

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

23

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

I.T. Rubio¹, L. Wyld², T. Kovacs³, M. Leidenius⁴, A. Kolacinska⁵, L. Marotti⁶, S. Bianca⁷, M.J. Cardoso⁸, L. Biganzoli⁹, R. Audisio¹⁰. ¹Clinica Universidad de Navarra, Breast Surgical Oncology, Madrid, Spain; ²Doncaster and Bassetlaw Teaching Hospitals, Surgery, Sheffield, United Kingdom; ³Guys Hospital, Breast Oncoplastic Unit, London, United Kingdom; ⁴Helsinki University Hospital, Breast Surgery Unit, Helsinki, Finland; ⁵Medical University of Lodz, Breast Unit, Lodz, Poland; ⁶EUSOMA, European Society of Breast Specialists, Florence, Italy; ⁷ZEBRA Breast Cancer Counselling Centre, Counseling Center, Dusseldorf, Germany; ⁸Champalimaud Cancer Center, Breast Cancer Surgery, Lisbon, Portugal; ⁹Nuovo Ospedale di Prato, Prato, Italy; ¹⁰Sahlgrenska University Hospital, Institute of Clinical Sciences, Goteborg, Sweden

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

surgical training and 1/3 being trained in a Breast Unit. It is imperative to develop quality standards for breast cancer surgery training to ensure that patients get standardized and certified surgical management regardless of the country they are treated.

Conflict of interest: No conflict of interest.

24

ELECTROCHEMOTHERAPY IN MELANOMA: A EUROPEAN E-DELPHI SURVEY TO DEFINE A CONSENSUS ON INDICATIONS, TREATMENT MODALITIES AND QUALITY INDICATORS

L.G. Campana¹, P. Quaglino², F.G. Bechara³, R. Marconato⁴, P.A. Ascierto⁵, C. Caracó⁶, M. Brizio⁷, J. Clover⁸, M. Bourke⁹, S. Valpione¹⁰, G. Sersa¹¹, C. Kunte¹², M. Mühlstädt¹³, G. Gerlini¹⁴, J. Hafner¹⁵, R. Patuzzo¹⁶, S. Farronato¹⁷, A. Orlando¹⁸, K. Eisendle¹⁹, E. Kis²⁰. On behalf of InSpECT (International Network for Sharing Practices of Electrochemotherapy) and members the Expert Panel¹ Veneto Institute of Oncology IOV-IRCCS, Surgical Oncology Unit, Padova, Italy; ²University of Turin, Department of Medical Sciences- Dermatologic Clinic, Turin, Italy; ³Ruhr-University, Department of Dermatology- Skin Cancer Center, Bochum, Germany; ⁴University of Padua, Department of Surgery Oncology and Gastroenterology - School of Surgery, Padua, Italy; ⁵Istituto Nazionale Tumori Fondazione G. Pascale, Medical Oncology Unit, Naples, Italy; ⁶Istituto Nazionale Tumori Fondazione G. Pascale, Surgical Oncology Unit, Naples, Italy; ⁷University of Turin, Department of Medical Sciences - Dermatologic Clinic, Turin, Italy; ⁸Cork Cancer Research Centre- Cork University, Department of Plastic- Reconstructive and Aesthetic Surgery, Cork, Ireland; ⁹Cork Cancer Research Centre, Cork, Ireland; ¹⁰The Christie NHS Foundation Trust, Medical Oncology, Manchester, United Kingdom; ¹¹Institute of Oncology Ljubljana - Ljubljana - Slovenia, Department of Experimental Oncology, Ljubljana, Slovenia; ¹²Ludwig-Maximillan University, Department of Dermatology and Allergology, Munich, Germany; ¹³Geneva University Hospitals, Division of Dermatology and Venereology, Geneva, Switzerland; ¹⁴Tuscan Tumour Institute IIT - Santa Maria Annunziata Hospital, Plastic and Reconstructive Surgery Unit, Florence, Italy; ¹⁵Zürich University, Department of Dermatology, Zürich, Switzerland; ¹⁶Fondazione IRCCS Istituto Nazionale dei Tumori, Melanoma and Sarcoma Unit, Milan, Italy; ¹⁷University of Padova, School of Medicine, Padova, Italy; ¹⁸Southmead Hospital- North Bristol NHS Trust, Department of Plastic and Reconstructive Surgery, Bristol, United Kingdom; ¹⁹Medical University Innsbruck- Central Teaching Hospital Bolzano, Department of Dermatology-Venerology, Bolzano, Italy; ²⁰University of SzegedSzeged- Hungary, Department of Dermatology and Allergology, Szeged, Hungary

Background: Electrochemotherapy (ECT) has evolved considerably over the past decade, but its application is yet to be standardized. In fact, a lack of agreement exists on eligible patients, timing of treatment, combination strategies and outcomes. Therefore, our aim was to establish a consensus on treatment indications (TI), procedural modalities (PM), and quality indicators (QI) of ECT in melanoma.

Material and methods: We invited 156 experts from 53 European centers who fulfilled pre-specified eligibility criteria to undertake a 3-Round web-based survey, according to a modified Delphi method. The inclusion criteria were: (a) at least 20% of practice in melanoma; (b) a minimum of 5 years of post-qualification experience; (c) participation to a melanoma multidisciplinary team (MDT) meeting; (d) ability to communicate in written English; (e) working at a center where ECT is currently performed. Each center was encouraged to participate with experts from different specialties. Out of 156 invited experts, 122 (78.2%) agreed to participate and received in-depth instructions. The questionnaires were administered through an online platform powered by Scientific Network (www.scientificnetwork.org) and the participants had at least eight weeks to complete each phase of the survey (April – May 2017; August – September 2017; November 2017 – January 2018). For each item, participants were asked to rate its relevance and to express their agreement on a five-point Likert scale (from 1= completely disagree to 5=completely agree). Consensus was defined as $\geq 70\%$ of subjects rating 3 or 4, and items were retained in case of stability in two successive iterations. Subject anonymity was maintained throughout the study and a controlled feedback was provided to allow participants to reassess their initial judgments.

Results: One-hundred subjects completed the first phase and thus

represented the Expert Panel (Italy, n=61; UK, n=10; Germany, n=6, Ireland, n=5; Portugal, n=4, Slovenia, n=4; Poland, n=4; Switzerland, n=3; Hungary, n=3; Denmark, n=1; Spain, n=1). The composition of the Expert Panel was as follows: surgeons, n=49; dermatologists, n=29; medical oncologists, n=15; radiotherapists, n=3; nurses, n=2; clinical scientists, n=2. The completion rate of the first, second and third Round of the survey was 82% (100/122), 97% (97/100), and 93% (90/97), respectively. In the final Round, we reached a consensus on 43 items on TI and on 16 QI. For each QI, a benchmark value was individuated through a real-time Delphi method.

Conclusion: Experts suggested a set of shared, melanoma-specific TI of ECT. Moreover, they agreed on a core set of QI, which could represent critical considerations for its safe adoption and promote the standardization of the procedure. The items lacking consensus may represent useful topics for future research.

Conflict of interest: No conflict of interest.

25

INTERNATIONAL COMPARISON OF TREATMENT STRATEGY AND SURVIVAL IN METASTATIC GASTRIC CANCER: A SURVEY FROM THE EURECCA UPPER GI GROUP

Y. Claassen¹, E. Bastiaannet¹, H. Hartgrink¹, J. Dikken¹, W. De Stuur¹, M. Slingerland², R. Verhoeven³, E. Van Eycken⁴, H. De Schutter⁴, M. Lindblad⁵, J. Hedberg⁶, E. Johnson⁷, G.O. Hjortland⁸, L. Jensen⁹, H. Larsson¹⁰, T. Koessler¹¹, M. Chevally¹², W. Allum¹³, C. Van de Velde¹. ¹Leiden University Medical Center, Surgery Department, Leiden, Netherlands; ²Leiden University Medical Center, Medical Oncology Department, Leiden, Netherlands; ³Netherlands Comprehensive Cancer Organisation IKNL, Department of Research, Leiden, Netherlands; ⁴Belgian Cancer Registry, Belgian Cancer Registry, Brussels, Belgium; ⁵Karolinska University Hospital, Department of Surgical Gastroenterology, Stockholm, Sweden; ⁶Uppsala University, Department of Surgical Science, Uppsala, Sweden; ⁷Oslo University Hospital- University of Oslo, Department of Gastroenterological and Pediatric Surgery- Institute of Clinical Medicine, Oslo, Norway; ⁸Oslo University Hospital, Department of Oncology, Oslo, Norway; ⁹Aarhus University Hospital, Department of Surgery, Aarhus, Denmark; ¹⁰a National Quality Improvement Programme RKKP, The Danish National Registries, Aarhus, Denmark; ¹¹Geneva University Hospital, Department of Medical Oncology, Geneva, Switzerland; ¹²Geneva University Hospital, Department of Surgery, Geneva, Switzerland; ¹³Royal Marsden NHS Foundation Trust, Department of Surgery, London, United Kingdom

Background: No survival benefit was shown in the randomized Asian REGATTA trial for additional gastrectomy over chemotherapy alone in patients with advanced gastric cancer with a single non-curable factor; thereby discouraging palliative gastrectomy surgery for this group of patients. The German prospective phase II AIO-FLOT3 trial indicated a favourable survival for patients with limited metastatic disease having surgery after neoadjuvant chemotherapy, and this is further being evaluated in the ongoing randomized RENAISSANCE trial. The aim of this study was to describe treatment strategy patterns for patients with metastatic gastric cancer in daily practice in five countries in Europe. Also, relative survival according to country was determined.

Material and methods: National population-based data from Belgium, Denmark, the Netherlands, Norway, and Sweden were collected and merged. All patients diagnosed with primary metastatic gastric cancer between 2006 and 2014 were included. Resection rates and the administration of chemotherapy (irrespective of surgery) in each country were analysed. Relative survival in each country was calculated.

Results: In total, 15 057 gastric cancer patients were included. The resection rate differed from 8.1% in the Netherlands and Denmark to 18.3% in Belgium. Chemotherapy was administered in 39.2% of the patients in the Netherlands compared to 63.2% in Belgium. Six-month relative survival was 54.1 (95% CI 95%: 52.1 – 56.9) in Belgium and 49.6 (95% CI 95%: 47.3–51.9) in Denmark compared to 42.6 (95% CI 95%: 39.8–45.4) in Norway, 39.6 (95% CI 95%: 37.6–41.5) in Sweden, and 39.0 (95% CI:37.8 – 40.2) in the Netherlands.

Conclusions: In Europe, wide variation is observed in the use of a gastrectomy for patients with metastatic gastric cancer and in