lymph nodes for breast cancer

P147

Use of indocyanine green (ICG) in detection of axillary sentinel lymph nodes for breast cancer

C. Nikolau1,2*, 1251 Hellenic Airforce Hospital, Athens, Greece

Goals: Axillary sentinel lymph node (SLN) is the first lymph node of breast's lymphatic drainage. According to the latest data, the lymph is divided into two or three sentinel lymph nodes (average 2.4 per patient). SLN biopsy is used to detect local axillary lymphatic cancer spread, avoiding unnecessary axillary lymph node dissection, with a remarkable low morbidity risk. Blue dye and radioisotope (Tc99) are the most widely used tracers. However, because of potential radioactivity consequences a new mapping agent has been proposed.

Methods: Novel mapping agent indocyanine green (ICG) has been recently implemented in our hospital to detect axillary SLN. More specifically, in five months period 19 patients with infiltrated breast carcinoma with no clinical and imaging findings of axillary involvement and no neoadjuvant therapy, enrolled in the study. 3/19 had positive SLN leading to axillary lymph node dissection. This technique does not include radioisotopes. Technically periareolar and near the breast tumor subcutaneous injections of ICG are performed, immediately after induction to anesthesia. An infrared camera system provides visualization of the lymphatic drainage and helps in the detection of the sentinel lymph nodes through fluorescent image in real time.

Results: SLN in our patients were recognized 2 min after the injection and have been successfully removed according to the postoperative histopathological analysis. There were no allergic reactions or other complications during the procedure. Our results are similar with previous studies.

Conclusion(s): ICG could serve as an alternative agent for detection and removal of sentinel lymph nodes in breast cancer, with the same results in terms of accuracy as the classic combination of radioisotope and blue dye, avoiding the side effects of radioisotope and the need of a nuclear medicine department establishment.

Conflict of Interest: No significant relationships.

P148

Conservatives mastectomies and immediate direct to implant breast reconstruction during COVID-19 pandemic: the strategy of Breast Center Villa Tiberia Hospital

D. Varvaras1*, R.A. Madaio2, V. De Felice1, S. Tardioli3, G. Papadopulos4, S. D’Onofrio5, G. Trobbiani6, M. Angeletti7, T.M.J. Al Lawati8, H. Nita8, 1Department of Surgery, Villa Tiberia Hospital GVM Care & Research, Rome, Italy; 2Department of Oncology, Ospedale Israelitico, Roma, Italy; 3Department of Radiology, Villa Tiberia Hospital GVM Care & Research, Rome, Italy; 4Euromedica General Clinic, Thessaloniki, Greece; 5Department of Radiology, Casa di Cura Inghiottiferrata, Rome, Italy; 6Department of Anesthesiology, Villa Tiberia Hospital GVM Care & Research, Rome, Italy; 7Department of Radiology, Casa di Cura Nuova Villa Claudia, Rome, Italy; 8Department of Surgery, Royal Hospital, Muscat, Oman; 8Department of Surgical Oncology, University Mother Teresa, Tirana, Albania

Goals: The current COVID-19 viral pandemic has dramatically impacted and caused widespread changes in delivery of breast cancer care in order to protect vulnerable patients whilst minimising compromise to oncological outcomes. Villa Tiberia Hospital was declared a regional spoke for the treatment of COVID-19 patients. Our surgery team, decided to perform immediate breast reconstruction (IBR) for patients undergoing mastectomy for cancer. Decisions on surgical planning were made on a case by case statement. In this abstract, we present our experience performing IBR during the COVID pandemic to understand safety of both patients and health care workers.

Methods: The main goals of our protocol were to reduce the risk of COVID spread for both patients and health care workers, develop rapid recovery for early patient discharge and through pain management. With the use of a strict safety protocol, we managed to grant reconstruction to all patients undergoing mastectomy, without increased risks. Risks and benefits of immediate reconstruction in the COVID-19 scenario were discussed with each patient. No specific consent was required since all clinical information was already mentioned in the standard Privacy Module that each patient signed at hospitalization.

Results: The protocol was applied safely to 31 patients between April 20st and December 20st. Mastectomy and IBR for invasive breast cancers was performed. Patent blue vital dye, injected sub-areolarly, was used for sentinel lymph node detection. Patients received 30 Nipple Sparing Mastectomy and 1 Skin Sparing Mastectomy, with prepectoral reconstruction and use of biological mesh in 15 cases and subpectoral in 16 cases. We found no significant differences in terms of complication rate compared with our data in the pre-COVID era and we did not observe any case of COVID infection, with a mean follow-up of 172 days.

Conclusion(s): Breast cancer surgery and IBR, in selected groups and with meticulous adherence to measures designed to reduce COVID-19 transmission, does not appear to be associated with elevated risk to patients or staff. Undertaking surgery in a designated Covid-protected Breast Centre, with rigorous pre-operative screening of patients and staff will help to considerably reduce the risk of Covid-19 transmission. We should have a flexible approach to adopt the dynamically evolving strategies and recommendations to deal with the current crisis for the best interest of our cancer patients.

Conflict of Interest: No significant relationships.

P149

Pre-pectoral breast reconstruction and complete implant coverage with a new bovine acellular pericardium matrix: Breast Center Villa Tiberia Hospital experience

D. Varvaras1*, M.G. Lo Schiavo2, V. De Felice1, S. Tardioli3, G. Papadopulos4, G. Trobbiani5, R.A. Madaio5, H. Nita7, T.M.J. Al Lawati8, 1Department of Surgery, Villa Tiberia Hospital GVM Care & Research, Rome, Italy; 2Department of Surgery, A.O. Papardo, Messina, Italy; 3Department of Radiology, Villa Tiberia Hospital GVM Care & Research, Rome, Italy; 4Euromedica General Clinic, Thessaloniki, Greece; 5Department of Anesthesiology, Villa Tiberia Hospital GVM Care & Research, Rome, Italy; 6Department of Oncology, Ospedale Israelitico, Rome, Italy; 7Department of Oncology, University Mother Teresa, Tirana, Albania; 8Department of Surgery, Royal Hospital, Muscat, Oman

Goals: Pre-pectoral breast reconstruction, assuming the possibility to avoid the use of the pectoralis major muscle for implant coverage and performing a complete wrapping of the prosthesis with a sheet of biological meshes, in order to avoid the direct contact between the silicone implant and the host tissues and complications such as animation deformity, muscular impairment and migration of the prosthesis. This study aims to describe our case series with pre-pectoral implant placement and coverage of it with bovine pericardium-derived matrix named exaSHAPE®.

Methods: Ten women with breast tumors were selected and underwent mono- or bilateral mastectomies and prepectoral breast reconstruction. We used a particular sheet of bovine pericardium-derived biological meshes, especially designed for pre-pectoral implant placement. It covers the whole front surface and approximately 1/3 of the rear surface of the implant. This mesh allows a perfect and simple fit, with less matrix. This need of a new shape, was due to the fact that most of complications, such as seroma and infection, are related to the amount of biological mass used.
Results: A total of 16 procedures were retrospectively collected. Mean age 46.8 years, BMI 22.7, follow-up 16.4 months. Reconstruction was carried out after a tumor in 80% of the cases, 18% had prophylactic surgery, 2% had revisions. Diabetes, smoke, and immunosuppression had an influence on complications occurrence, as well as implant weigh. Of the 10 patients that underwent this procedure, only two presented complications that resolved in a maximum of three weeks. Capsular contracture was associated with postoperative radiotherapy, but the overall rate was low (3.1%).

Conclusion(s): Pre-pectoral implant positioning offers less pain, less morbidity and faster recovery, while the percentages of capsular contracture and animation deformity are almost zero in all studies. exaSHAPE® represents a good alternative over other biological meshes. The need of a very close collaboration between all the specialists involved is very high, in order to achieve oncological safety and the best aesthetic result. We are at the beginning of a new era in breast reconstruction and our duty is to achieve the best for our patients. Pre-pectoral Breast Reconstruction

Conflict of Interest: No significant relationships.

**P150**

Role of SPECT/CT in detection of the marked metastatic lymph node and the sentinel node, after neoadjuvant chemotherapy in patients with breast cancer

E. Dilege1*, O. Falay 2, O. Agcaoglu 3, N. Kapucuoglu 4. 1Breast Surgery, Koc University Hospital, Istanbul, Turkey; 2Nuclear Medicine, Koc University Hospital, Istanbul, Turkey; 3General Surgery, Koc University Hospital, Istanbul, Turkey; 4Pathology, Koc University Hospital, Istanbul, Turkey

**Goals:** Sentinel lymph node biopsy (SLNB) is the standard of care for early stage breast cancers, but its use after neoadjuvant chemotherapy (NAC) for node positive disease still remains controversial. There are some technical points to be improved. The use of two different mapping techniques in combination and placement of a marker in the known metastatic lymph node is highly recommended for the safety of the patients. However the marked lymph node is not as easy to find at all times. In this study we aimed to share our experience with Single-photon emission computed tomography coupled with computed tomography (SPECT/CT) in detection of the sentinel lymph node (SLN), which also guides the surgeon easily to the marked lymph node prior to NAC.

**Methods:** We evaluated the clinical data of 38 female patients with locally advanced breast cancer, who had undergone NAC followed by breast cancer surgery, retrospectively. All of the patients had SPECT/CT for the localisation of the SLN before surgery. All the SPECT/CT images have been evaluated by the same nuclear medicine specialist, and all the breast surgeries have been done by two surgeons. The patients had undergone their planned breast surgery regardless of the axillary surgery. The marker in the excised lymph node was either confirmed by specimen mammography or by the pathologist.

**Results:** In 31 patients the marker was tracked in the sentinel node with SPECT/CT, however in 7 of the patients the marked lymph node was not the SLN. There was a 100% overlap of the SPECT/CT results and the auxiliary surgical findings. SPECT/CT correctly showed whether the marker is in the SLN or not regardless of the tumor biology. The discordant 7 patients included partial response to NAC, complete response or NAC resistant tumors. Response of the primary tumor to chemotherapy was not an indicator to estimate the SLN path change. One patient had complete pathological response but all the lymphatic drainage paths blocked, no SLN identified, where we had to do a complete axillary dissection.

**Conclusion(s):** The guidance of SPECT/CT helps the surgeon to decide reliably, the correct pathway for removing the marker placed lymph node and the SLN during breast surgery after NAC. With this information in hand before surgery; the surgeon either can choose to do an axillary clearance or place a guidewire before surgery aiming to remove the marked lymph node with the actual SLN, with no excess stress in the operation room. In selected patients SPECT/CT alone can be used for mapping.

**Conflict of Interest:** No significant relationships.

**Survivorship issues**

**P151**

Evaluation of an end of treatment summary in patients with early breast cancer: quality improvement project

K. Nsiah 1*, J. Finlay 2, D. Betal 2. 1Brighton & Sussex Medical School, Brighton, United Kingdom; 2Western Sussex Breast Care Centre, Worthing, United Kingdom

**Goals:** The National Cancer Survivorship Initiative (NCSI) was launched in collaboration with NHS England and Macmillan Cancer Support to improve cancer services. One the main aims was to enable cancer survivors live a healthy and as a good quality of life for as long as possible. Breast cancer treatment is tailored for the individual patient and can be complex. For many breast cancer survivors, it may be difficult to remember every aspect of cancer diagnosis and treatment. Patients that are aware of their own cancer history in terms of diagnosis and treatment may benefit from greater patient satisfaction and empowerment, effective use of information resources and appropriate medical care if needed in the absence of universal medical records.

**Methods:** Data was collected retrospectively on 128 patients who underwent surgery by a single surgeon for early breast cancer from 1 January to 31 December 2019. An end of treatment summary and survey questionnaire with prepaid return envelope was sent to each patient. The survey collected quantitative and qualitative data about the details, layout and usefulness of the summary as well as data pertaining to confidence accessing breast care services. Quantitative data was collected using a 5-point Likert scale and qualitative data was obtained using free text questions.

**Results:**

| Questions                                                                 | Strongly Agree | Agree | Neither | Disagree | Strongly Disagree |
|---------------------------------------------------------------------------|----------------|-------|---------|----------|------------------|
| 1. The layout of the summary was readable                                | 0%             | 0%    | 1%      | 36%      | 63%              |
| 2. The summary made me understand my diagnosis better                     | 2%             | 6%    | 18%     | 37%      | 38%              |
| 3. The details of my surgery and other treatment was concise and understandable | 2%             | 1%    | 4%      | 41%      | 53%              |
| 4. Receiving a copy of my treatment summary was useful                     | 2%             | 2%    | 8%      | 37%      | 53%              |
| 5. The care plan summary met my expectations                              | 0%             | 1%    | 13%     | 44%      | 42%              |
| 6. I feel confident dealing with my breast cancer follow-up care          | 0%             | 4%    | 7%      | 47%      | 42%              |
| 7. I have a good understanding of the side effects of treatment           | 0%             | 2%    | 9%      | 46%      | 42%              |
| 8. I feel confident identifying and reporting breast cancer related issues/concerns | 0%             | 5%    | 8%      | 43%      | 43%              |
| 9. I have a good knowledge about available support                        | 0%             | 2%    | 8%      | 42%      | 49%              |
| 10. I am confident gaining direct access to the breast services if needed  | 0%             | 1%    | 5%      | 38%      | 57%              |

The survey was completed by 106 patients (83% response rate). The majority of respondents (75%) agreed that the end of treatment summary aided their understanding of their diagnosis and was useful (90%). Most felt confident dealing with follow-up care (89%), understanding the side effects of treatment (88%), good knowledge