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outcome data in this group of patients and the perception that surgery may accelerate disease progression. We sought to benchmark surgical and survival outcomes in a cohort of patients with oligometastatic disease undergoing autologous breast reconstruction with a deep inferior epigastric artery perforator (DIEP) flap in our unit.

Methods: We performed a retrospective cohort study (2004–2019) of patients with oligometastatic disease (defined as ≤ 5 sites of metastases) either pre-, or within 3-months post-DIEP flap surgery at The Royal Marsden Hospital. Exclusion criteria included >5 metastatic sites and patients with metastatic disease undergoing chest wall resurfacing with a DIEP flap for local palliation. We quantified surgical morbidity and oncological survival outcome in this group.

Results: We performed autologous breast reconstruction with a DIEP flap (19 unilateral, 1 bilateral) in 20 patients with oligometastatic disease (55% bone, single site; 25% visceral only, 20% bone and visceral). In 11 patients, reconstruction was performed at the time of mastectomy (8 primary surgery, 3 failure of breast conservation surgery) and in 9 patients in the delayed setting. Primary tumour characteristics included median size 66.4 mm (2–155 mm), 86% ductal, 71% hormone receptor positive with N₁–N₃ in 60%. The majority of patients had received previous systemic/regional cancer treatments.

Breast reconstructions were performed successfully in all patients with no cases of flap failure and favourable risk profile (Clavien-Dindo: 0 (30%), I-II (65%), III (5%).

The median follow-up was 38 months (3–90 months) in 19 patients. The median overall survival (OS) from breast reconstruction was 38 months (8–93 months) (OS 3-years = 89.2%). The median progression free survival (PFS) from breast reconstruction was 23 months (1–57 months) (PFS 3-years = 45%). Tumour size and inflammatory disease components were suggestive of earlier disease progression but hormone receptor status and duration of oligometastatic disease had no effect.

Conclusion(s): Autologous breast reconstruction in the oligometastatic disease setting can be delivered safely but may be associated with early disease progression in patients with larger tumours or tumours with an inflammatory component. We would advocate discussion of all oligometastatic cases within a specialist Oncoplastic multidisciplinary team.

Conflict of Interest: No significant relationships.

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Evaluation of the impact of the COVID-19 pandemic on the practice of axillary node dissection

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Goals: The Association of Breast Surgery published “COVID-altered” guidance for the management of breast cancer during the COVID-19 pandemic, including that neoadjuvant chemotherapy was only to be used only in inoperable disease and not to downstage the axilla or facilitate breast conserving surgery. In addition, there has been concern over delayed cancer presentation with increased axillary node involvement.

This observational study aims to establish if the practice of axillary node dissection (AND) has increased in the context of the COVID-19 pandemic.

Methods: Patients undergoing operative management for breast cancer were identified retrospectively from theatre coding in a UK breast unit. Pre-COVID (March 2018 - February 2020) and COVID pandemic (March - September 2020) cohorts were defined and compared. For those undergoing AND the following data was ascertained: indication, tumour biology, neoadjuvant therapy, deviation from routine practice and histological outcomes.

Results: AND was performed in 20.2% (23/114) of all breast cancer operations during the COVID pandemic compared with 18.9% (78/411) pre-COVID. Indication for AND during COVID pandemic and pre-COVID respectively: clinically node positive 82.6%/79.4%; positive sentinel node biopsy 4.3%/17.9%; recurrence or metastases from contralateral cancer 13%/2.5%. Neoadjuvant chemotherapy preceded AND in 30% of cases in both cohorts. Case review identified one patient in whom neoadjuvant chemotherapy for a clinically node positive HER2+ was omitted due to the pandemic and one other who had adjuvant chemotherapy omitted for a HER2+ cancer with a single positive sentinel node mandating an AND which yielded no further positive nodes.

Conclusion(s): The COVID-19 pandemic has not had a major impact on rates of AND in our practice. However, we identified 2 patients who may have avoided AND had there not been deviation from routine neoadjuvant and adjuvant chemotherapy practice.

Conflict of Interest: No significant relationships.

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Surgical and oncologic outcomes of robotic and conventional nipple-sparing mastectomy with immediate reconstruction: pooled analysis of individual patient-level data from international multi-centers

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Goals: The aim of this study is to evaluate and compare surgical and oncologic outcomes between robotic nipple-sparing mastectomy and conventional nipple-sparing mastectomy with immediate breast reconstruction.

Methods: This is a pooled analysis of individual patient-level data from international multi-centers. A total of 755 procedures in 660 women who underwent nipple-sparing mastectomy with immediate reconstruction were enrolled. All cases were analyzed according to the method of the procedures: 292 procedures of robotic nipple-sparing mastectomy (RNSM) and 463 procedures of conventional nipple-sparing mastectomy (CNSM). Primary endpoint was surgical outcomes including the rates of complication within postoperative 30 days (POD 30d), nipple necrosis, and the grade of Clavien-Dindo classification. Secondary endpoints were oncologic outcomes including the rates of disease-free survival and overall survival. Propensity score matching (PSM) analyses were performed to adjust for compounding factors. Multivariate analyses to evaluate the odds ratios of significant risk factors for nipple necrosis or the grade of postoperative complications were investigated using binary logistic regression.

Results: Complication rates at POD 30d rates were not different between the two groups. Nipple necrosis rates were 2.2% for RNSM and 7.8% for CNSM, respectively ($p=0.002$). Postoperative complications grade III were less common in the RNSM group than the CNSM group (10.9% vs. 19.4%, $p=0.003$). After PSM, nipple necrosis and rate of postoperative complications grade III were significantly lower in the RNSM group than in the CNSM group (1.1% vs. 8.4%, $p=0.001$ for nipple necrosis rate, 11.6% vs. 22.1%, $p=0.011$ for postoperative complications grade III). Disease-free and overall survival rates were not significantly different between two groups.