gender mastectomy on these measures post-operatively. In its next phase, our study will be assessing these results.

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Sentinel Lymph Node Biopsy in Perineal Melanoma: A Surveillance Epidemiology and End Results Program (S.E.E.R.) Study

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PURPOSE: Current management of melanoma focuses on excision with the potential for lymph node evaluation depending on factors such as Breslow depth and ulceration status. The value of sentinel lymph node biopsy (SLNB) is well established in providing prognostic information, as patients with positive sentinel lymph nodes have worse survival outcomes. However, the option to pursue SLNB has not shown to provide any therapeutic benefits in improving survival. Anatomic specific locations for melanoma have been superficially evaluated, and to our knowledge there is no such literature surrounding SLNB in the perineum. Therefore, the purpose of this study is to evaluate the presence of a therapeutic benefit for SLNB and identify risk factors conferring reduced survival in patients with perineal melanoma.

METHODS: The Surveillance, Epidemiology, and End Results (SEER) program is a large population-based cancer registry including survival data from millions of patients in the United States. The registry was used to generate patient data for analysis from 2004–2015. Inclusion criteria included melanoma of the vulva, penis, and scrotum; Breslow depth <0.80mm with ulceration and ≥0.80mm with or without ulceration; and documented SLNB with associated procedures, or no intervention performed. Outcomes of interest included disease-specific survival (DSS) and overall survival (OS), as well as patient and melanoma characteristics associated with reduced survival.

RESULTS: Aggregates for DSS and OS were improved with implementation of SLNB. 5-year survival rates with SLNB were 54.7% and 49.9%, as compared to those without SLNB (44.9% and 38.0%) for DSS (p = 0.007) and OS (p = 0.001), respectively. Stratification by Breslow depth yielded significant OS advantage for >1.00–2.00mm (17.3% benefit p = 0.033) and >4.00mm (21.2% benefit p = 0.005) Breslow depth. Significant predictors of reduced survival included age greater than 75, Clark level IV-V, Breslow depth >4.00mm, positive ulceration status, melanoma subtype, and high mitotic rate.

CONCLUSION: Although further randomized controlled trials are needed to establish definitive conclusions, our results suggest SLNB and resultant management may provide additional therapeutic benefits for patients with melanoma of the perineum.

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Intraoperative Liposomal Bupivacaine for Donor Site Iliac Crest Bone Harvest in Alveolar Bone Grafting

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PURPOSE: Iliac crest bone harvesting is routinely performed for patients undergoing alveolar bone grafting. Postoperative pain is one of the most common sources of graft site morbidity. Liposomal bupivacaine has been shown to decrease postoperative pain in patients receiving bunioectomy of hemorrhoidectomy. The role in pediatric patients undergoing alveolar bone grafting with an iliac crest donor site is unknown. The purpose of this study is to evaluate the efficacy of liposomal bupivacaine as compared to bupivacaine at the iliac crest hip donor site in pediatric patients.

METHODS: 38 patients undergoing iliac crest bone grafting were included in the study, with 21 and 17 patients receiving 0.25% bupivacaine and 1.30% liposomal bupivacaine respectively. Inclusion criteria included patients less than or equal to 18 years old. Outcomes of interest included reported pain scores every 4 hours for the first 24 hours, cumulative narcotic use, and length of stay. Postoperative steps were monitored using an activity tracker.

RESULTS: The bupivacaine and liposomal bupivacaine groups showed no significant differences in age, weight,
distribution of clefts, choice of donor hip, or length of stay. Pain scores were significantly improved at the 4-, 12-, 16-, 20-, and 24-hour time points (p < 0.001, p = 0.010, p = 0.002, p = 0.006, and p = 0.009), with the 8-hour time point approaching significance (p = 0.064) in the liposomal bupivacaine group versus the bupivacaine group. Total narcotic consumption was reduced in the liposomal bupivacaine group at 4.65±5.26 oral morphine equivalents compared to the bupivacaine group at 14.29±11.97 (p = 0.002). Average steps on postoperative day 1, 2, 3, and 5 were significantly higher in the liposomal bupivacaine group (p <0.001, p <0.001, p <0.001, p = 0.032), with day 4 approaching significance (p = 0.056).

CONCLUSION: Liposomal bupivacaine reduces postoperative pain in children undergoing iliac crest bone graft harvest, and this is reflected in a reduction in narcotic use as well as an improvement in early activity.

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Postsurgical Complications Associated with Tissue-Expander Placement into the Previously Irradiated Breast

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PURPOSE: Breast-conservation therapy (BCT) consisting of lumpectomy followed by radiation therapy (XRT) is commonly used in the treatment of breast cancer, with high rates of success. However, a small percentage of these patients eventually develop recurrence of breast cancer necessitating a mastectomy. Previous radiation therapy is known to be a significant risk factor for surgical complications, but few studies have quantified the effect of XRT on breast reconstruction. We report our institution’s experience of breast cancer patients who initially underwent unilateral BCT, followed by bilateral mastectomy and immediate tissue-expander reconstruction.

METHODS: A retrospective review of all postmastectomy breast reconstructions performed at our institution over a 4 year period (2014–2018) was conducted. The initial search yielded 958 breast reconstruction patients, of which 90 had a history of BCT. Of these, 29 patients underwent unilateral BCT followed by bilateral mastectomy and reconstruction with immediate tissue-expander insertion.

RESULTS: Overall there were 58 breasts with mastectomies and immediate tissue-expander reconstruction. The time between completion of radiation therapy and mastectomy ranged from 1 year to 21 years, with a median of 5 years.

At the time of mastectomy, 26 breasts had cancer, 17 of which were recurrences in a previously irradiated breast. Skin sparing mastectomies were performed in 19 breasts, while nipple sparing mastectomies were performed on 38 breasts. A radical, non-skin sparing mastectomy was performed on 1 breast. There were 42 partial submuscular tissue-expander insertions and 8 each of prepectoral and total submuscular tissue-expander insertions.

The rate of postsurgical complications was greater in previously irradiated breasts (37.9 vs 13.5%). The most prevalent complication was surgical site infection, which occurred in 11 breasts (19%) and previously irradiated breasts had a higher rate of this complication (p=0.041). Instances of major infection, requiring salvage reoperation or explantation, were only observed in previously irradiated breasts (3 breasts, 10.3%). The quantity of salvage reoperations for any complication was greater in previously irradiated breasts (0.73 vs 0.25) and an analysis of all irradiated breasts demonstrated trends in associations between time since XRT, intraoperative tissue expander fill volume, days before surgical site drain removal and postsurgical complication.

CONCLUSIONS: Immediate placement of a tissue expander in a previously irradiated breast can be accomplished, though not without increases in both the quantity and severity of complications. These findings indicate the need for further investigation of the risks associated with tissue expander placement into a previously irradiated field.

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Preoperative CTA Efficiently Facilitates Perforator Decision-Making in DIEP Flap Breast Reconstruction: a Blinded Prospective Study

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