CONCLUSION: Previous studies were consistent with our results for both the vertical and horizontal dermal forces.\(^2\) In our study, the tensile strength of the tested human abdominal dermis samples, both aesthetic and post-bariatric, were superior to the tested commercial meshes. Therefore, in some selected cases, abdominal dermis could be an alternative tool in abdominal reconstruction during panniculectomies with concomitant hernia repair.\(^3\)

DISCLOSURE/FINANCIAL SUPPORT: Supported by the Federal University of Rio Grande do Sul, Brazil. Neither of the authors has a financial interest in any of the information mentioned in this manuscript.

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Adipose-Derived Aldehyde-Dehydrogenase-Expressing Cells Accelerate Re-vascularization of Collagen-Glycosaminoglycan Scaffolds

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INTRODUCTION: Collagen-glycosaminoglycan (CG) scaffolds, also known as dermal regeneration templates, are used for the reconstruction of full-thickness skin defect in patients with extensive resections due to burns, traumatic or inflammatory conditions.\(^1\) The natural process of revascularization typically lasts two to three weeks precluding immediate skin grafting. The usage of stem cells has demonstrated to accelerate wound healing. However, stem cell usage requires several steps of cell culturing that preclude using this method in the acute setting. Aldehyde dehydrogenase (ALDH) is an enzyme that plays an important role in retinoid metabolism and is highly expressed in stem cells.\(^2\) In this study, we isolated ALDH-expressing cells from subcutaneous adipose tissue and tested them for their potential to enhance healing in a full-thickness skin wound in rats by co-implanting them with CG scaffolds.

MATERIALS AND METHODS: Stromal-Vascular-Fraction (SVF) was obtained from subcutaneous adipose tissue of syngeneic rats. ALDHhi cells were isolated using a fluorescence-activated cell sorting technique with ALDEFLUOR assay kitTM. Each recipient rat underwent four full-thickness wounds creation on the recipient rat’s back, each wound was treated differently. A total of four treatment groups were formed (n=11). Group 1 (control group) consisted of wounds treated with CG and 100 μL normal saline. Group 2 (SVF group) consisted of CG and 1 × 105 cells/cm2 SVF cells. Group 3 (ALDH group) consisted of CG and 1 × 105 cells/cm2 ALDHhi cells. Group 4 (ASCs group) consisted of CG and 1 × 105 cells/cm2 ASCs. Animals were evaluated by histology on day 7 after surgeries.

RESULTS: Scaffolds seeded with ALDHhi cells histologically demonstrated remarkable enhancements in dermal regeneration, vascularization, and collagen growth, if compared to the wound treated with CG alone, CG with SVF, and CG with ASCs groups. Immunofluorescent staining with CD31 emphasized that transplanted ALDHhi cells differentiated into vascular endothelial cells.

CONCLUSIONS: Composite transplantation of CG scaffolds and adipose-derived ALDHhi cells promoted dermal regeneration, not worse than cultured ASC, suggesting that ALDHhi cells could be used in an acute setting as a reliable alternative for cultured ASCs.

DISCLOSURE/FINANCIAL SUPPORT: Supported by Toho Women’s Clinic Research Foundation, the Gillian Reny Stepping Strong Fund, and the Brigham Research Institute and the Center for Faculty Development and Diversity’s Office for Research Careers Microgrant Program. None of the authors has a financial interest in any of the products, devices, or drugs mentioned in this manuscript.

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**Age, Socioeconomic Status, Race, and Congenital Nevus Excision**

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**BACKGROUND:** Excision of congenital nevi is recommended for cosmetic benefit, as well as for malignancy prophylaxis. As the lesions grow with the children, excisions at a younger age may be technically easier. The authors examined patterns in congenital nevus excision.

**METHODS:** HCUP-KID, the largest publicly-available pediatric inpatient all-payer database, was queried for patients with diagnoses of congenital nevi and procedure codes indicating excisions between 2000–2012. Regression models were used, with significance <0.05.

**RESULTS:** One thousand three hundred and six discharges were found, of patients of average age 5.2 ± 5.2 years. Six hundred seventy-seven patients (53.7%) were female; 54.9% were Caucasian. Using a linear model to predict age, controlling for gender, race, private insurance, high income quartile, and hospital region, white race (-1.53 years, p<0.0001) and median household income in the highest quartile (-0.96 years, p=0.044) were significant. In binary logistic regressions controlling for gender, race, private insurance, high-income quartile, and region, increasing age was associated with fewer local excisions (OR 0.97, 0.94–0.99) and less tissue expander use (OR 0.96, 0.92–0.99) and more radical excisions (OR 1.05, 1.02–1.08) and graft use (OR 1.07, 1.04–1.10). Forty-four patients had complications, including 29 infections and 12 hemorrhages/hematomas. In a binary logistic regression controlling for gender, race, private insurance, region, excision type, age, and zip-code income quartile, local and radical excision were less likely to be associated with complications versus tissue expanders, flaps, and grafts (OR 0.97, 0.94–0.99 and 0.96, 0.92–0.99, respectively). Southern location was associated with complications (OR 5.15, 1.23–20.69). There were zero complications in the northeastern region versus 27 in the south and 13 in the west. Patients with complications had longer hospital stays (6.18 ± 8.05 versus 1.88 ± 2.14, p <0.001) and higher hospital charges ($43,662.08 ± 61,214.37 versus $19,777.82 ± 16,516.34, p <0.001).

**CONCLUSIONS:** Patient age at presentation drives selection of excision type for congenital nevi. Certain excision types are higher risk. As patient age at presentation is associated with socioeconomic and demographic factors, non-white and poorer patients may be at increased risk for complications following excision of congenital nevi. This study was limited by the lack of lesion size information available in the database; however it is the first study to examine management of congenital melanocytic nevi on a national scale.

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**An Assessment of Youtube as a Source of Information on Breast Reconstruction Following Mastectomy**

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**INTRODUCTION:** YouTube is widely-used by patients to seek information regarding healthcare and may influence health behaviours.1 We aimed to evaluate the quality of videos on YouTube relating to breast reconstruction options following mastectomy

**METHODS:** In January 2016, relevant YouTube videos were selected independently by two authors. Videos were assessed and classified as: “useful”, “misleading” or “person accounts” based on the quality and content of videos therein. A Cohen’s kappa coefficient was used to assess inter-observer variability. Author of video, total views, and video duration were also noted.

**RESULTS:** Overall, 129 videos had relevant information relating to breast reconstruction options following mastectomy. Of 129, 41.9% were “useful” and 33.3% were “misleading.”