ACHIEVING CURE, MAINTAINING FUNCTION, PRESERVING APPEARANCE

SCARS CENTER
SKIN CANCER AND RECONSTRUCTIVE SURGERY CENTER

the Skin Cancer Connection

Publication of SCARS Center

SCARScenter.com 949.719.1800

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RESEARCH AT SCARS CENTER: OUR ACADEMIC MISSION

Our program of clinical research is only three years old, but it has produced significant peer-reviewed original publications with no industry financial support. In the last year, we have published three landmark papers on nasal and lip reconstruction in ***JAMA Facial Plastic Surgery*** and ***Facial Plastic Surgery & Aesthetic Medicine***. In ***JAMA***, our article was one of the highest trending papers.

Two of the articles feature flaps, one that is a game changer in nasal reconstruction. The other focuses on preserving natural lip appearance and function after skin cancer treatment.

The research team is in the process of publishing five other peer-reviewed articles.

Additionally, our website, SCARScenter.com, has one of the largest collections of blogs on skin cancer—over 150!

PUBLISHED IN **JAMA FACIAL PLASTIC SURGERY**

Dr. Simon Madorsky, with the support of the SCARS Foundation, has produced a landmark study, published in the July 2019 issue of ***JAMA Facial Plastic Surgery***. The paper introduces an innovative reconstructive technique for nasal defects.

Small to medium nasal defects resulting from skin cancer treatment are challenging to correct, especially when located in the nasal tip. Dr. Madorsky has championed a lateral extended nasal island flap (LENI flap) to provide a reliable single-stage reconstruction for such defects with excellent functional and cosmetic results.

The study included nearly one hundred patients who had this LENI flap done at the SCARS Center from 2009 to 2018. Indications for surgery were mostly skin cancer defects and occasionally scar revisions.

Dr. Madorsky's study found that the LENI flap is a reliable technique for reconstruction of nasal defects up to 1.8 cm. The extended dissection and release of the flap achieves the predictable outcome and separates it from the previously described lateral nasal island flaps.

Clinical images from the procedure (left) and 10 months after the procedure.

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SRT FOR MELANOMA IN SITU MARGIN TREATMENT

SRT (superficial radiotherapy) is a painless alternative to surgery that allows patients the freedom to maintain an active lifestyle during treatment. **We use SRT for additional margin treatment of extensive melanoma in situ**. In some cases, the lesion can extend histologically for several centimeters beyond the central lesion. This 84-year-old woman on the right presented with a large melanoma in situ requiring extensive nasal skin removal for surgical margin clearance. Instead, she was treated with a moderately aggressive central lesion excision and office-based SRT to treat additional margins. The treatment margins were guided by mapping biopsies. The SRT course was performed three times per week for four weeks.

The patient avoided extensive surgery and reconstruction while completing the necessary treatment. She experienced minimal life interruption and had an excellent cosmetic result.

Additional margins of melanoma in situ were treated with office-based SRT instead of extensive surgery.

CASE STUDIES

The Skin Cancer Connection features summaries of cases presented at our monthly conference.

For more details on each article, scan the QR code below.

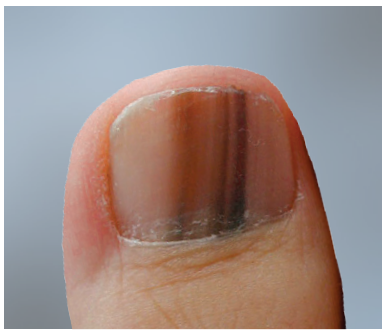
DIFFERENTIATION OF BENIGN MELANONYCHIA FROM MELANOMA

Melanonychia striata (longitudinal melanonychia) is a benign streak of pigmentation under a nail. It is important to clinically differentiate it from subungual melanoma. The benign melanocytic activation of the nail matrix can be caused by medications, infection, trauma, or pregnancy, especially in darker pigmented individuals.

When compared to benign melanonychia striata, subungual melanoma usually appears abruptly, grows rapidly, occurs after middle age, and involves a single digit. Clinically, the melanonychia of the melanoma darkens over time, has color variegation, has blurry lateral borders, irregular elevation or dystrophy of nail plate, a pigment band width of >3mm, proximal widening, and/or a positive Hutchinson sign.

Hutchinson sign, periungual extension of brown-black pigmentation from longitudinal melanonychia onto the proximal and lateral nail folds, although not pathognomonic for subungual melanoma, is highly suggestive of its presence.

Biopsy for melanonychia should be performed at the nail matrix, where the melanocytes reside. Best results are usually achieved after avulsion of the nail plate. **The excisional biopsies should be oriented horizontally in the matrix to prevent onychodystrophy in the future.** In some cases, a longitudinal/vertical excision can be performed to evaluate the full extent of the matrix and nail bed. Generally, this should only be performed at the lateral/medial periphery of the matrix to avoid nail splitting and dystrophy. It is best done by an experienced dermatologic surgeon.



Melanonychia striata of the fingernail (left). Melanoma of the toenail (right).

INTRALESIONAL 5-FU FOR CARCINOMAS IN ORGAN TRANSPLANT RECIPIENTS

Organ transplant recipients can suffer from multiple cutaneous carcinomas due to chronic immunosuppression. Areas of extensive sun exposure such as the face and scalp are particularly prone to squamous cell carcinomas (SCC) and basal cell carcinomas (BCC). At SCARS Center, we developed a multi-prong approach to these patients that includes surgery, superficial radiotherapy (SRT), and intralesional 5-fluorouracil (5-FU) injections.

Intralesional 5-FU is injected into the cancers once or twice weekly for a total of six injections. Acute inflammatory response achieves a 90% cure rate. It is particularly useful in the setting of multiple cancers that are too deep for topical form of 5-FU (Efudex).

Our patient presented with 18 simultaneous carcinomas of the scalp and face. Twelve lesions were treated within one month of the first stage of management. Two high-risk scalp SCCs were treated with Mohs excision and sentinel lymph node biopsies. Three carcinomas of the nose (SCC and BCC) were treated with SRT. Simultaneously, seven SCCs were treated with intralesional 5-FU with complete resolution.

5-fluorouracil was injected in six sessions over three weeks to achieve a complete response of the SCC in this kidney transplant recipient.

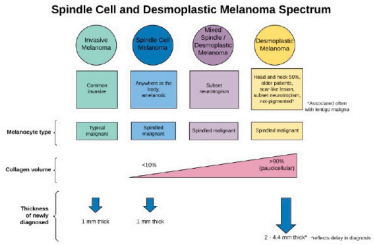
SIGN UP FOR MONTHLY EMAILS

Subscribe to **The Skin Cancer Connection** to receive research updates, blog posts, and invitations to our monthly conference.

DESMOPLASTIC SPINDLE CELL MELANOMA

This patient's rapidly-growing subcutaneous mass was diagnosed as a spindle cell melanoma on an incisional biopsy. It was treated with wide local excision creating a 10 x 9 cm scalp defect. Final pathology revealed a desmoplastic spindle cell melanoma.

Desmoplastic melanoma and spindle cell melanoma are two distinct melanoma subtypes that differ clinically and histologically. They are the uncommon variants of traditional melanoma. As in this patient, mixed lesions can present creating a diagnostic and treatment challenge. The spindle cell melanoma have little pigmentation and need to be differentiated from other spindle cell tumors by immunohistochemistry. The desmoplastic melanoma is a scar-like lesion with copious collagen and few spindled melanocytes. **Desmoplastic melanomas have clinically-distinct presentation and course**. Our patient was treated postoperatively with PD-1 inhibitor pembrolizumab (Keytruda). For an infographic on differentiating the melanoma subtypes, visit our the patient case studies section of our website or scan the QR code at the right.



Copious pink collagen of desmoplastic melanoma.

The tumor and its wide resection margin.

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SCARS FOUNDATION

EDUCATION. RESEARCH. INNOVATION.

The Skin Cancer And Reconstructive Surgery (SCARS) Foundation offers a monthly skin cancer management conference. It is an accredited activity offering up to two hours of CME credits. To attend, go to our website or call the center to register.

The Skin Cancer Connection and SCARScenter.com are your source for diagnostic dilemmas, treatment challenges, and reconstructive issues for challenging skin cancer cases.

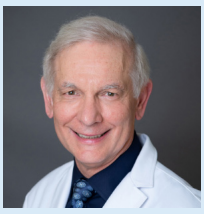
Dermatopathology

Ronald Barr, MD

Dermatology & Mohs Surgery

Matthew Goodman, MD

Mark Juhl, MD



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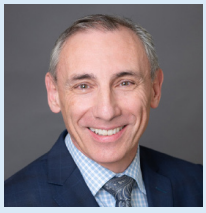
Plastic & Reconstructive Surgery



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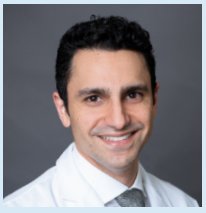
Steven Daines, MD



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