The Xoft Electronic Brachytherapy System at
Skin Surgery Medical Group, Inc.
San Diego, California

CASE STUDY

Determined to strengthen their reputation as a leader in innovative skin cancer treatment, a dedicated dermatology practice adopted a non-surgical skin cancer treatment option to achieve the highest standard of care for their patients.
Facility and Physician Profile:

Skin Surgery Medical Group Inc., located in San Diego, California was established in 1982. The group offers all aspects of dermatologic care but Dr. Gross’s practice is limited to the diagnosis and treatment of skin cancer. The group is dedicated to providing patients with the best possible skin care. Skin Surgery Medical Group, Inc. prides itself on being an early adopter of new technologies and treatments. The practice includes clinical, teaching, and research oriented dermatologists who have significant experience in all aspects of dermatological care.

Dr. Ken Gross is a Diplomate of the American Board of Dermatology, the American Board of Laser Surgery, and the American Board of Cosmetic Surgery. He is also a Fellow of the American Society for Mohs Surgery, the American Academy of Dermatology, and the American Academy of Facial Plastic and Reconstructive Surgery. He is presently Clinical Professor of Medicine (Division of Dermatology) at the School of Medicine, University of California, San Diego (non-salaried). Dr. Gross has authored two textbooks on Mohs surgery: Fundamentals of Mohs Surgery and Mohs Surgery and Histopathology—Beyond the Fundamentals.

Case Study Objective:

This case study demonstrates how to offer non-melanoma skin cancer (NMSC) patients who are not candidates for surgery a non-invasive option in an office setting. It will also outline how Skin Surgery Medical Group elevated its practice by implementing the Xoft® Axxent® Electronic Brachytherapy System®.

Non-surgical Complement to Your Practice:

In July 2013, Skin Surgery Medical Group, Inc. introduced the Xoft System for the treatment of primary non-melanoma skin cancer (NMSC). Skin electronic brachytherapy (eBx) utilizes a unique, miniaturized isotope-free x-ray source to deliver targeted radiotherapy directly to the lesion. The simple outpatient treatment regimen is prescribed based on tumor size, type, depth, and other criteria. During the treatment, a small surface applicator is placed on the treatment site. The x-ray source is then placed in the surface applicator to deliver radiation therapy directly to the lesion. At the completion of the treatment, the x-ray source is turned off and the applicator is removed. The patient is able to immediately return to normal daily activities. The treatment is non-invasive and painless. The low energy source offers fast dose fall-off, minimizing radiation exposure to normal healthy tissue.

Unlike traditional radiation therapy options, the Xoft System typically requires a total of eight fractions per lesion administered twice weekly for approximately six minutes per lesion. Skin eBx is particularly beneficial to patients who may find it difficult to comply with the demands other radiation treatment options because it provides similar treatment benefits without the inconvenience of daily visits for three to four weeks. Dr. Ken Gross believes the Xoft System provides the opportunity to offer patients excellent care with the convenience of radiation treatment administered in the dermatology office.

Because the Xoft System requires minimal shielding, Skin Surgery Medical Group, Inc. is able to provide the treatments in a standard office exam room eliminating costly room design and construction investment. Although Dr. Gross has a dedicated room for brachytherapy, the Xoft System is highly mobile which allows it to be easily transported between multiple treatment rooms or facilities. This unique feature provides physicians with the flexibility to treat outside of a clinical setting, which can help mitigate logistical issues of elderly or disabled patients.
“The Xoft Electronic Brachytherapy System for NMSC is clinically effective and provides time-efficient treatment with minimal side effects for the patient” commented Dr. Gross.

**Patient Selection and Results:**

The Xoft System is cleared by the FDA for treatment of NMSC and other surface lesions including keloids. Dr. Gross feels that it is critically important to carefully select appropriate patients with primary basal and squamous cell carcinomas, for this innovative treatment. This non-surgical treatment option is ideal for a small subgroup of elderly patients, patients with significant medical comorbidities, patients on high doses of anticoagulants or multiple anticoagulants, or patients who are not candidates for surgery for other reasons. Although skin eBx is not a replacement for Mohs surgery (especially for recurrent tumors) it does provide an alternative treatment for primary cancers in difficult locations. Dr. Gross preferentially utilizes the Xoft system to treat non-recurrent NMSC on lower legs, ankles and other locations where surgical excision would compromise mobility or which are at high risk for delayed healing or dehiscence. Skin eBx is particularly well suited for patients who are unable to tolerate the decreased physical activity that is common in the postoperative period after standard surgery.

The Xoft System supports Skin Surgery Medical Group’s mission of offering their patients a variety of treatment alternatives. Dr. Gross remarks, “The ability to provide multiple treatment options is important to our patients and therefore the Xoft System adds unique value to our facility.”

Patients at Skin Medical Group are surveyed post treatment, and results have been positive with no serious complications.
Xoft System Benefits:

The Xoft System utilizes isotope-free radiation technology providing the facility with maximum treatment room flexibility due to its minimal shielding requirements. This feature can also provide a measure of comfort to both staff and patients. The low energy x-ray source allows the physician or radiation technician the option to be in the room with the patient during treatment, which can be especially helpful with elderly patients. The fail-safe system is simple to turn on and off as needed.

“The Xoft System has many key advantages over other skin radiation treatment options. The unique miniaturized Xoft source is positioned at the skin surface inside a small steel applicator, so that room shielding is not needed, unlike any other skin radiation systems. The high dose rate of the source results in treatment times of 6 minutes and allows treatments to be delivered twice a week instead of daily. Patient satisfaction with the Xoft System treatment schedule and results has been tremendously gratifying.”
Dr. Stephen Doggett, Radiation Oncologist.

Increase Efficiency and Patient Volume:

The treatment regimen typically used by Dr. Gross consists of 8 treatments, (requiring six minutes per treatment) delivered twice weekly, which allows the practice to offer its patients a more convenient treatment schedule than other traditional radiation treatment options.

- Fewer visits (twice weekly)
- Easy to schedule
- Fast treatment delivery in as little as six minutes
- Patients remain on all their anticoagulants at full dosages
- Patients remain ambulatory during and after treatment

Offering an effective treatment alternative to surgery retains patients who are not surgical candidates and potentially could increase patient volume within the dermatology facility.

Conclusion:

Skin Surgery Medical Group has adopted the Xoft System to elevate its position as a leader in skin cancer treatment in the Southern California region. The addition of this treatment option has allowed the facility to attract new patients and, retain those who are not ideal candidates for surgical excision. Dr. Gross comments, “as a result of the addition of the Xoft System, I expect to continue to expand our comprehensive skin cancer practice by providing our patients a valuable treatment option that has good cure rates.”