

# OCULAR SURGERY NEWS<sup>®</sup>

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## Shaving of benign facial skin lesions can be safe and effective

This technique offers advantages over surgical excision, the authors say.

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Removal of benign skin lesions is traditionally performed by surgical excision. But there are several disadvantages to surgical excision, including longer surgical time, higher cost, the need for sutures and suture removal, which can lead to scarring.

The shaving technique using a radiosurgical unit (Surgitron EMC, Ellman International Inc., Hewlett,

studies have shown can produce less tissue alteration. Fine micro wire loop electrodes of various sizes and shapes can be used.

The unit also has other settings and electrodes for a variety of other procedures, making the equipment very versatile.

### Their study

We have included 37 patients with nevocellular nevi in our study. Location of lesion, number, size, color, hair and type of lesion (congenital or acquired) were documented. After treatment, healing, scarring and cosmetic results were observed.

Fourteen other patients with benign skin lesions also were included. These patients had filiform wart, molluscum pendulum, seborrheic keratosis, keratoacanthoma, diagnosis, angiofibroma and neurofibroma.

Age of the patients varied from 10 to 55, with a mean age of 36. There were 35 women and seven men included in the study. The nevocellular nevi were congenital, except for four acquired lesions. All lesions were stable for the preceding 5 to 10 years. Nevocellular nevi were primarily located on the face. Size of the lesions varied from 0.5 to 1.5 cm and were dome shaped in most cases (although some had flat nevi). Color varied from a light to a dark brown.

### The technique

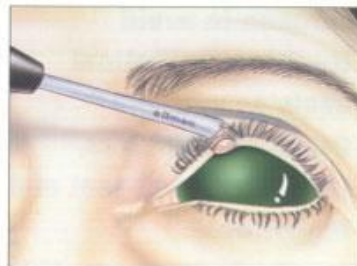
The unit was set to a fully filtered (cutting) current at the lowest possible power, which allowed the loop electrode to glide through the lesion without tissue drag. This is enhanced by keeping the lesion moist with sterile saline.

The lesion is anesthetized using 1% Xylocaine (lidocaine HCl, Astra) with 1/100,000 epinephrine. The lesion is entered with a 25-gauge needle, rais-

ing the lesion up, and a blanching of the lesion is observed. The lesion is then held with Adson forceps, applying tension to the skin around the lesion. The wire loop electrode is



Photograph of preoperative lesions on upper lid margin.



Drawing of loop electrode excising lesion.



Photograph of postoperative appearance of lid.



Photograph of preoperative pigmented lesion on skin of face.



Photograph of postoperative appearance of facial skin.

applied to the lesion at a right angle to the skin. Once the bulk of the lesion is removed, we release tension on the skin to observe the edges of the lesion. The unit now is turned to a "cutting and coagulation" current. With light, fine strokes, the remainder of the nevus is removed. A moistened 2 x 2 gauze is used to abrade the surface of the skin to remove any carbonized tissue, allowing us to reassess any residual lesion.

The bulk of the lesion is submitted for histopathologic evaluation. As there is very little lateral heat spread, there is no charring and no artifact, so an easy diagnosis can be made by the pathologist.

An antibiotic ointment is applied postoperatively for 1 week. The patient is instructed to use sun block.

### Results

We have been using this technique for the past 5 years, and in this particular study, a total of 58 nevocellular nevi were treated using the shaving technique. Most of the lesions were intradermal. Other skin lesions also have been shaved, including seborrheic keratosis, keratoacanthoma, molluscum pendulum, filiform wart, angiofibroma and neurofibroma.

Histopathologic exam confirmed all clinical diagnoses with the exception of three, which showed an angioma, keratoacanthoma and a wart. During the follow-up period, we evaluated the healing and the quality of cicatrization.

Cicatrization was fast: 1 week for both nevi groups and the benign tumor group.

In the nevi group, 10% recurred partially. Two nevocellular nevi recurred as a pseudomelanoma. This is the result of not completely removing the nevus.

We had 6.9% of either hyperpigmentation or hypopigmentation. Most of the patients preferred this result to the nevus itself. This can be improved by a better adjustment of the power setting and by giving adequate time for tissue to cool down between passes of the electrode. Proper use of sun blocks, which was not the case for these patients, and the skin type of patients of sub-Mediterranean descent, also affect the results. Two percent of the patients required a touch-up procedure. Results were evaluated as excellent by both the surgeon and the patients. In the benign skin lesion group, the results also were excellent.

### Malignant transformation

The shaving technique was first

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N.Y.) is faster, simpler, safe, more cost effective and yields a better cosmetic result than surgical excision. The Surgitron IEC model is designed for use in hospital OR settings.

The equipment also can be used for tissue specimens for those lesions requiring a histopathologic confirmation.

### How it all works

Radiosurgery employs a high frequency radiowave to shave the skin lesions. The radiowaves through the unit handpiece leave the unit at a frequency of 3.8 MHz, which numerous

described in 1878 by Baker who used a razor blade to shave a giant facial nevus.

Later on, Dufourmental improved the technique using a calibrated razor.

The hypothesis of the trauma to melanocytic lesions was described first by Broca in 1862 and is still referred to by some authors. However, studies showing the unlikely traumatic origin of melanoma as this was confirmed by animal as well as human studies.

One disadvantage of the technique is that the nevus only can be excised totally, because a partial excision is a trauma, which may transform a benign nevus into a nevocarcinoma.

histopathological exam to confirm the benign lesion and to look for a junctional activity, in which case a closer follow-up is required. Patient information, regarding any change occurring in the area of the lesion, should be noted. Patients also should be encouraged to use sun block.

#### Good for shaving

In regard to radiosurgery, this is an excellent tool for shaving because there is minimal lateral heat spread, so there is virtually no damage to the adjacent tissue. Additionally, it allows for rapid healing and extremely sim-

ple postoperative care. Radiosurgery helps the surgeon to avoid traditional elliptical excision with the associated sutures, scarring, time spent and higher cost. This is even more important with respect to lid margins and the pentagonal excision.

Additionally, radiosurgery has the advantage of the laser, without the tremendous cost that is involved. The unit also occupies a smaller area than the laser and does not have the drawbacks in regard to the precautions that need to be taken to avoid eye injury.

Training for efficient use of the Ell-

man unit is highly recommended. ■

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Many authors believe if a nevus is traumatized and becomes a melanoma, it was probably malignant before the trauma. However, others believe the trauma causes the lesion to be malignant.

It is primarily in older studies that malignant transformation phenomenon is reported. These studies lack a histopathologic examination and are based on clinical observations only.

In more recent studies, several American authors published numerous papers in favor of the shaving technique. We now know that the Koernberg and Ackerman pseudomelanoma is benign and does not require a re-intervention, despite the clinical and histopathological aspect, which may be worrisome. Some French authors are skeptical in regard to a very rare malignant transformation.

For us, we continue to pay special attention to these patients, although many authors agree that trauma is not considered a factor in malignant transformation of the nevus, as malignancy may occur a few weeks to several years later. With a 5-year follow up, we did not note any sign of malignant transformation.

#### A beneficial procedure

In regard to the shaving technique in general, and radiosurgical shaving in particular, we can say that this is a simple, safe and highly rewarding technique that requires good clinical analysis and evaluation of the lesion.

Surgeons should perform a

